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June 28, 2007

Baltazar Mejia, Sr. Engineer
City of Costa Mesa
77 Fair Drive
Costa Mesa, CA 92628

Subject: Update to the Biological Constraints and Information for the Fairview Park Master Plan, City of Costa Mesa, County of Orange, California

Dear Mr. Mejia:

The City of Costa Mesa (City) requested LSA Associates, Inc. (LSA) to update the biological constraints and opportunities information presented in a report prepared by Robert A. Hamilton in 1995[1] as part of the Fairview Park Master Plan (Plan).[2] The City is preparing to enhance Fairview Park by creating wetlands and riparian habitat and improving recreational use as part of the Plan.

INTRODUCTION

In the winter of 2005 and the spring and summer of 2006, LSA conducted focused field surveys for southern tarplant *(Centromadia parryi* var. *australis)*, burrowing owl *(Athene cunicularia)*, and coastal California gnatcatcher *(Polioptila californica californica)*. All focused surveys were positive for these three species. In addition, general surveys were conducted for sensitive plant species, and vernal pools and vegetation communities were mapped and quantified.

The list of plant species detected in 1995 and 2005/2006 is attached as Appendix A.

The list of animal species detected in 1995 and 2005/2006 is attached as Appendix B.

The burrowing owl report is attached as Appendix C.

The coastal California gnatcatcher report is attached as Appendix D.

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1 Hamilton, Robert A. 1995. Biological Constraints and Opportunities Analysis, Fairview Park, Costa Mesa. Fairview Park Master Plan as Appendix C, dated March 1998. Prepared for the City of Costa Mesa. 9 October. Costa Mesa, California.

2 Katzmaier Newell, Kehr, et al. 1998; Revised February 2001. Fairview Park Master Plan. Prepared for the City of Costa Mesa. March. Costa Mesa, California.

STUDY AREA

LSA conducted biological surveys and mapped vernal pools and vegetation communities within Fairview Park (Park). The Park is approximately 200 square acres and straddles Placentia Avenue at 2501 Placentia Avenue in this coastal City in Orange County, California (Figure 1). This study area is approximately 2.5 miles from the Pacific Ocean and west of State Route 55 (SR-55), with Adams Avenue to the north and Victoria Street to the south. Immediately adjacent to Fairview Park is a residential community to the north, the Costa Mesa Golf Course to the east, and Marion Parsons School and Estancia High School to the south. Talbert Nature Preserve abuts the western edge of Fairview Park, with the Santa Ana River and the City of Huntington Beach farther to the west. The western portion of Fairview Park is atop a bluff near the Santa Ana River.

Specifically, the study area is located within Section 8 in Township 6 South, Range 10 West, with approximate Universal Transverse Mercator coordinates of $^{4}12^{469m}$ by $^{37}25^{750m}$ along the north, $^{4}12^{536m}$ by $^{37}24^{642m}$ along the south, $^{4}13^{340m}$ by $^{37}25^{282m}$ along the east, and $^{4}12^{567m}$ by $^{37}25^{196m}$ along the west, as shown on the 7.5-minute series United States Geological Survey (USGS) topographic *Newport Beach, California* quadrangle map. Area topography includes a low-lying area in the northern portion of the study area, with rolling slopes and a flat mesa to the south and east. Elevation ranges from 1.5 meters (m) (5 feet [ft]) to 24 m (80 ft) above mean sea level. Most of the study area is vegetated with ruderal exotic species including extensive patches of black mustard *(Brassica nigra)* and sweet fennel *(Foeniculum vulgare)* (Figure 2).

PLANT COMMUNITIES

The plant communities in 2006 are generally consistent with the findings reported in 1995. This report identified 18 vegetation communities and follows the classification system developed by the County of Orange.[1] All of these habitat types are illustrated on the vegetation communities map (Figure 2) and are discussed in greater detail below.

Southern Coastal Bluff Scrub (2.1)

Southern coastal bluff scrub is a coastal vegetation type on the west-facing bluff above Talbert Nature Preserve. This bluff area is over 2,000 feet long and has patches of this vegetation type, which have been disturbed and fragmented. The coastal bluff scrub is dominated by bladderpod *(Isomeris arborea),* coastal prickly pear *(Opuntia littoralis),* California encelia *(Encelia californica),* and California wishbone bush *(Mirabilis californica).* In the moist, lowland areas along the west edge, this community has a strong component of nonnative poison hemlock and black mustard. This community also has several California box thorn *(Lycium californicum)* specimens, a California Native Plant Society (CNPS) List 4 species (4 plants have a limited distribution).

Southern coastal bluff scrub of moderate quality covers approximately 1.0 acre. The 1995 Plan reported 2.4 acres.

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[1] Jones and Stokes Associates, Inc. 1993. Methods Used to Survey the Vegetation of Orange County Parks and Open Space Areas and The Irvine Company Properties. Prepared for the County of Orange, 10 February, Sacramento, California.

Purple Sage Scrub (2.3.3–revegetated). Purple sage scrub is dominated by purple sage *(Salvia leucophylla)* with a lesser component of California encelia *(Encelia californica)* and California buckwheat *(Eriogonum fasciculatum)*. In the early 1990s, a small patch (approximately 0.7 acre) of the north-facing slope below the mesa was minimally hydroseeded with California buckwheat and purple sage. This area is bisected by a paved path and is overgrown with exotic sweet fennel and black mustard.

Revegetated purple sage scrub covers approximately 1.0 acre.

Buckwheat Scrub (2.3.7). This buckwheat scrub area is small and grows adjacent to the purple sage scrub described above. This nearly pure stand of California buckwheat along the paved trail also has a low density component of purple sage and some ruderal species. Buckwheat scrub is most often found on slopes that have been disturbed within the last 10 years.

Buckwheat scrub covers approximately 0.2 acre.

Coyote Brush Scrub (2.3.9). This coyote brush scrub area is limited in area in the northwest corner of the Park. This vegetation class grows in the lowland revegetated mixed scrub area described below. This stand of coyote bush is mature, with most individual plants over 7 feet tall with thick trunks. Coyote brush scrub usually occurs on flat or gentle slopes that have been disturbed within the last 20 years. There are also individual coyote bush plants scattered throughout the Park.

Coyote brush scrub covers less than 0.2 acre.

Mixed Scrub (2.3.10–revegetated). There are two revegetated areas of mixed scrub within Fairview Park; one area was planted in 1994, while the second area was planted in 2006. The mixed scrub revegetated areas total approximately 13.4 acres.

Originally planted in the winter of 1994, this area was cleared of exotic plant species and replanted in the winter of 1995/1996. The mixed scrub is a mature association of nearly equal amounts of California sagebrush *(Artemisia californica)*, California encelia, coyote bush *(Baccharis pilularis)*, coastal goldenbush *(Isocoma menziesii* cf. var. *vernonoides)*, black sage *(Salvia mellifera)*, and common buckwheat. Other species include coastal prickly pear *(Opuntia littoralis)*, bladderpod *(Isomeris arborea)*, laurel sumac *(Malosma laurina)*, toyon *(Heteromeles arbutifolia)*, lemonade berry *(Rhus integrifolia)*, and bush monkey flower *(Mimulus aurantiacus)*. This vegetation type is on the west side of Placentia Avenue, east of the mesa and west of the parking area.

Revegetated mixed scrub in this upland area covers approximately 2.3 acres.

The second, and newest, mixed scrub revegetation is a triangular area in the northwest corner of Fairview Park. This area is dominated by annual bur-sage with a recently planted component of California sagebrush, California encelia, coastal prickly pear, coyote bush, lemonade berry, white nightshade *(Solanum americanum)*, and common buckwheat.

Revegetated mixed scrub in this lowland area covers approximately 11.1 acres.

Floodplain Sage Scrub (2.6; Called Alluvial Scrub by Hamilton)

The northwest corner of the Park has sandy soils that support floodplain sage scrub. This area is regularly disturbed and has two small patches of giant reed *(Arundo donax)*. A portion of this area was recently (early 2006) disced and temporarily fenced, and by October 2006 the fenced portion was revegetated with native container plantings (approximately 65 percent cover) (see discussion of Habitat Restoration Sites below). The dominant plant species is annual bur-sage *(Ambrosia acanthicarpa)*, while other plant species in the area include narrow-leaved willow *(Salix exigua)*, California croton *(Croton californicus)*, salt heliotrope *(Heliotropium curassavicum)*, western ragweed *(Ambrosia psilostachya)*, telegraph weed *(Heterotheca grandiflora)*, California evening primrose *(Oenothera californica)*, and a small patch of chaparral sand-verbena *(Abronia villosa* var. *aurita)*, a California Native Plant Society (CNPS) 1B species (1B plants are "rare or endangered throughout their range"). Notable nonnative species, when not disced, include exotic annual grasses, poison hemlock *(Conium maculatum)*, shortpod mustard *(Hirschfeldia incana)*, tree tobacco *(Nicotiana glauca)*, and common cocklebur *(Xanthium strumarium)*.

Floodplain sage scrub covers approximately 10.0 acres.

Chenopod Scrub (2.7; called Saltbush Scrub by Hamilton)

This vegetation type occurs as a few small patches of Brewer's saltbush *(Atriplex lentiformis* ssp. *breweri)* in several areas on the west side of the Park. Similar to the results from 1995, one area of mature chenopod scrub is on the west-facing bluff, and the other is in the west-central portion of the mesa growing within mounded fill.

Chenopod scrub covers approximately 0.4 acre.

Annual Grassland (4.1)

Annual grasslands, along with ruderal areas, are the dominant vegetation types in Fairview Park. East of Placentia Avenue is almost exclusively annual grassland mixed with some ruderal vegetation. Specifically, grasslands surround the vernal pools on the southern end of the mesa west of Placentia Avenue and also grow in a large patch at the north end of this mesa. Some of the vernal pools are dominated by nonnative, annual grasses, particularly those pools in the southeast between the main parking area and Estancia High School.

Dominant species in the grassland areas are primarily nonnative species including slender wild oat *(Avena barbata)*, wild oat *(Avena fatua)*, common ripgut grass *(Bromus diandrus)*, soft chess *(B. hordeaceus)*, red brome *(B. madritensis* ssp. *rubens)*, crab grass *(Digitaria sanguinalis)*, nitgrass *(Gastridium vetricosum)*, paradox canary grass *(Phalaris paradoxa)*, rabbitfoot grass *(Polypogon monspeliensis)*, and foxtail fescue *(Vulpia myuros)*. Native species include saltgrass *(Distichlis spicata)*, Mexican sprangletop *(Leptochloa uninervia)*, giant wild rye *(Leymus condensatus)*, needlegrass *(Nassella sp.)*, Lemmon's canary grass *(Phalaris lemmonii)*, and vernal barley *(Hordeum intercedens)*. Within the grassland areas are occasional mature native shrubs of mulefat *(Baccharis salicifolia)* and coyote bush *(B. pilularis)*. Fascicled tarplant *(Deinandra fasciculata)*, a native annual,

grows low along the periphery of the grasslands, on the trail edges, and in the small patches between the dirt trails around the edge of the mesa.

Annual grassland covers approximately 40.6 acres.

Ruderal (4.6)

Ruderal herbaceous forbs include dense stands of sweet fennel, shortpod mustard, black mustard with scattered tocalote, and horehound with occasional mulefat and coyote bush. Less abundant ruderal species include Russian thistle, tocalote, common horseweed, telegraph weed, Australian saltbush, tumbling pigweed, castor bean *(Ricinus communis)*, cheeseweed *(Malva parviflora)*, bristly ox-tongue *(Picris echioides)*, and crystal ice plant *(Mesembryanthemum crystallinum)*. Under some of the ruderal vegetation are dense patches of nonnative, annual grass species. Occasionally moist soils support white-stem gumplant *(Grindelia camporum)* and poison hemlock, particularly along the lower western edge at the base of the west-facing bluff and adjacent Talbert Nature Preserve. Along the periphery of the dense stands of exotic fennel and mustard is native fascicled tarplant, which grows along the trail edges and in the small peripheral patches between the dirt trails around the edge of the mesa.

Ruderal vegetation covers approximately 95 acres.

Vernal Pools (5.1)

In 1994 vernal pools were documented at Fairview Park. Vernal pool habitat is a rare natural resource that was once common on mesas and coastal bluffs in Southern California. In the late 1990s, seven pools and one vernal marsh were identified by Tony Bomkamp; his mid-1990s findings are referenced below.[1] The vernal pool identification numbers west of Placentia Avenue follow those of Mr. Bomkamp.

In 2006, LSA conducted a follow-up assessment of these vernal pools and mapped the pools using a global positioning system (GPS) (Figure 3). The rainy season during the 2005/2006 winter produced less than typical rain amounts. The vernal pools at Fairview Park did not have significant pooled or standing water in 2006; therefore, LSA did not provide a complete assessment, particularly of the pools east of Placentia Avenue. For example, a fairy shrimp survey was not possible in 2006. Despite the less than ideal conditions, the general status and a brief description of the 2005/2006 Fairview Park vernal pools are summarized below.

In addition, three vernal pools (Figure 2; Pools A–C) were reported east of Placentia Avenue.[2] In 2002, Glenn Lukos Associates reported these three vernal pools based on the presence of remnant woolly marbles *(Psilocarphus brevissimus)* from the 2001 season within the depression. Vernal Pool

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1 Bomkamp, Tony. 1995. Vernal Pools: Environmental Sensitivity of and Description of Vernal Pools and Associated Resources. Fairview Park Master Plan as Appendix C, dated March 1998. 9 October. Lake Forest, California.

2 Glenn Lukos Associates. 2002. Evaluation of Biological Resources Associated with Expansion of Model Railroad Facility at Fairview Park. Report prepared for the City of Costa Mesa. 12 September. Lake Forest, California.

A was reported as being inside the existing railroad track alignment. In the winter of 2005, Jan Vandersloot and Gil Collins walked this area and reported via e-mail to the City of Costa Mesa (Robert Staples) a "wet depressional area with wetland vegetation…curly dock…."[1]

In general, the vernal pools at Fairview Park appear in poor to moderate condition due to residual effects from fill dirt placed in the 1980s and degradation from invasive exotic plant species, particularly grasses. Overall, the pools seem comparable to the descriptions from 1995. Aside from a footpath bisecting Vernal Pools 1–3 (now one pool), none of the pools seem to be experiencing degradation from foot traffic or direct human impacts.

Plant species detected in the vernal pools, particularly the largest pool (combined Vernal Pools 1, 2, and 3) include alkali mallow *(Malva parviflora)*, smooth boisduvilia *(Epilobium pygmaeum)*, tumbling pigweed (*Amaranthus albus)*, alkali plagiobothrys (*Plagiobothrys leptocladus)*, woolly marbles *(Psilocarphus brevissimus* var. *brevissimus)*, spotted spurge (*Chamaesyce maculata)*, redmaids *(Calandrinia cf. ciliata)*, small-flowered microseris *(Microseris douglasii* ssp. *platycarpha)*, prostrate navarretia (*Navarretia prostrata*), vernal barley *(Hordeum intercedens)*, soft chess *(Bromus hordeaceus)*, and paradox canary grass (*Phalaris paradoxa*).

Vernal Pools 1–5 west of Placentia Avenue cover approximately 3.9 acres.
Vernal Pools A–C east of Placentia Avenue were not quantified.[2] However, Vernal Pool A, east of Placentia Avenue, was reported by Glenn Lukos in 2002 as being 10 x 40 feet (ft).

Vernal Pools 1, 2 and 3. Vernal Pools 1, 2, and 3, now recombined, are the largest pools at Fairview Park. Prior to the mid 1980s, Vernal Pools 2 and 3 were connected to Vernal Pool 1, but in the mid-1980s they were separated by mounded fill dirt. Restoration of these three pools began in October 1996. In 2006, prostrate navarretia (CNPS List 1B species), small-flowered microseris (a CNPS List 4 species), and vernal barley (CNPS List 3 species), were found in these pools. The pools had approximately 90 percent vegetative cover at the time of the survey and total approximately 3.3 acres.

Vernal Pool 4. Vernal Pool 4 is west of Canyon Drive. In the mid-1990s, the pool was described as being less floristically diverse than Vernal Pools 1 and 5, which is still true in 2006. The pool is approximately 0.1 acre and is disturbed by some invasive plants. In 2006 this pool had approximately 75–80 percent vegetative cover.

Vernal Pool 5. Vernal Pool 5 is the second-largest pool, at approximately 0.5 acre. This pool is located in the south-central portion of the Park and is adjacent to the west edge of Estancia High School. In 1994 this pool was floristically very diverse and supported a dense population of San

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1 Vandersloot, John. 2005. Electronic mail sent February 27, 2005 to Robert Staples at the City of Costa Mesa.

2 Ibid.

Diego fairy shrimp.[1] In 2006 this pool was floristically moderately diverse and had approximately 95 percent vegetative cover.

Vernal Pool 6. Vernal Pool 6 is approximately 0.02 acre and is located just south of Pool 5. In 1994 this pool was not floristically very diverse and supported only a small number of San Diego fairy shrimp. In 2006 this pool was overgrown with exotic grasses (100 percent vegetative cover) and appeared highly degraded.

Vernal Pool 7. Vernal Pool 7 is approximately 0.05 acre and is located along the east side of a well used, paved pedestrian path between Pools 1, 2 and 3 and Pool 5. This pool was not described in 1994. In 2006 this pool had approximately 80 percent vegetative cover.

Vernal Pools A-C. Glenn Lukos Associates mapped Vernal Pools A, B, and C east of Placentia Avenue in its 2002 biological resources report and reported Pool A as being 10 x 40 ft, but did not quantify Pools B or C.[2] Chambers Group also reported these pools, but did not qualify or quantify them in its preconstruction survey report.[3]

Vernal Marsh (Described by Tony Bomkamp;[4] there is currently no classification number or description for this habitat type in the County of Orange habitat classification references by Jones and Stokes[5] or Gray and Bramlet[6])

The vernal marsh is located along the west side of Canyon Drive, just south of Vernal Pool 4. In 1994 the marsh was described as similar to the vernal pools but lacking diagnostic vernal pool vegetation. In 2006 the marsh was not well defined by topography and the vegetation was similar to the

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1 Bomkamp, Tony. 1995. Vernal Pools: Environmental Sensitivity of and Description of Vernal Pools and Associated Resources. Fairview Park Master Plan as Appendix C, dated March 1998. 9 October. City of Costa Mesa, California.

2 Glenn Lukos. 2002. Evaluation of Biological Resources Associated with Expansion of Model Railroad Facility at Fairview Park. Report prepared for the City of Costa Mesa. 12 September. Lake Forest, California.

3 Chambers Group. 2005. Final Draft of the Results of the Preconstruction Survey for the Fairview Regional Park Bicycle Trail, Costa Mesa, California. Prepared for Shelby Howard, City of Costa Mesa. 15 March. Costa Mesa, Orange County, California.

4 Hamilton, Robert A. 1995. Biological Constraints and Opportunities Analysis, Fairview Park, Costa Mesa. Fairview Park Master Plan as Appendix C, dated March 1998. Prepared for the City of Costa Mesa. 9 October. Costa Mesa, California.

5 Jones and Stokes Associates, Inc. 1993. Methods Used to Survey the Vegetation of Orange County Parks and Open Space Areas and The Irvine Company Properties. Prepared for County of Orange. 10 February. Sacramento, California.

6 Gray, John Ph.D., and Bramlet, David. 1992. Habitat Classification System Natural Resources Geographic Information System (GIS) Project. May. Prepared for County of Orange Environmental Management Agency, Santa Ana, California.

surrounding ruderal vegetation. The marsh had 80–100 percent vegetative cover, primarily by exotic grasses.

Vernal marsh covers approximately 0.04 acre.

Willow Riparian Scrub (7.2; called Willow Scrub by Hamilton)

Willow riparian scrub is a cluster of several black willow *(Salix gooddingii)* trees. This scrub is located in the southwest corner of the Park in the flat area below the west-facing bluff and has an understory of poison hemlock, black mustard, and castor bean.

Willow riparian scrub covers approximately 0.5 acre.

Mulefat Scrub (7.3)

Mulefat scrub is a cluster of mature mulefat in the northwest corner of the Park, adjacent a new restoration site. Mulefat can have very long tap roots and generally grow in moist areas or at least seasonally moist areas. This habitat type is used by many bird species, particularly in the late summer and fall.

Mulefat scrub covers approximately 0.3 acre.

Walnut Scrub (8.2)

A small cluster of Southern California black walnut *(Juglans californicia* var. *californica)* is growing in the southwest corner of the Park in the upper part of a gully along the west-facing bluff. There are 8–12 individuals approximately 15–20 feet tall.

Walnut scrub covers approximately 0.1 acre.

Developed–Nonurban Commercial/Industrial/Institutional (15.3)

Developed areas include the paved parking lots, channels/drains, out-buildings (e.g., restroom), and the train station. Many of these developed areas have associated ornamental shrubs and trees. A flood control channel known as Fairview Channel passes through the north end of Fairview Park. This channel has a concrete-lined bottom east of Placentia Avenue and has a dirt bottom with riprap sides west of Placentia Avenue. The channel has lightly flowing water (e.g., nuisance, storm drain) year-round and is fenced to limit access. Fairview Channel is unvegetated and covers approximately 6.7 acres within the Park.

Developed areas cover approximately 8.4 acres, including approximately 6.7 acres of open channel.

Giant Reed (no classification number for this habitat)

Giant reed *(Arundo donax)* is a highly invasive exotic weed species that grows in dense clusters similar to many bamboo species. This species occurs in small patches in the western portion of the Park. In 1995 there were three locations with giant reed. In 2006 giant reed was somewhat more evident, with the most notable patches in the northwest and southwest areas in the middle of the lowland area and in erosion rills on the west-facing bluff. Eradication of this invasive species requires regular active management.

Giant reed covers approximately 0.2 acre

Ornamental Landscaping (15.5)

Ornamental landscaping includes turf grass and ornamental plantings associated with the train station on the east side of Placentia Avenue and the area surrounding the parking lot and picnic and bathroom area on the west side of Placentia Avenue.

Ornamental landscaping covers approximately 13.2 acres.

Disturbed or Barren (16.1)

Disturbed or barren classification includes the cleared areas associated with the dirt trails on the west side of Placentia Avenue surrounding the parking lot and picnic and bathroom area. This type of habitat also passes around the mesa and down into the northern lowlands.

Disturbed or barren areas cover approximately 13.3 acres.

PLANT SPECIES

LSA botanist Stan Spencer, with assistance from LSA biologist Ingri Baroni, conducted a general plant survey and a focused sensitive plant species survey in June 2006. At that time a nearly 100 percent coverage survey of all areas of potentially suitable habitat for the species of interest were covered with the exceptions being the revegetation area in the northwest corner of the study area, which was only partially covered, and the west-facing bluff, which was investigated from the lower trail, but was not traversed. Additional general plant surveys and vegetation mapping were conducted by LSA in conjunction with focused wildlife surveys. Plants observed were those expected in a disturbed coastal environment with a landscaped park and recreational component.

A list of observed plant species is included in Appendix A. This list may not include all exotic species present in the landscaping. Sensitive plant species are described below in the Sensitive Species section.

WILDLIFE

General wildlife surveys were conducted in conjunction with focused surveys and vegetation analysis. In addition to general wildlife surveys, LSA conducted focused surveys for limited distribution

wildlife species including the burrowing owl and coastal California gnatcatcher. Both species were detected within the study area in 2005 and/or 2006 outside the breeding season. Ponded water within the vernal pool areas in 2006 was not significant; therefore, searches for special status and special interest invertebrate and amphibian species were not conducted.

Most of the wildlife species reported in 1995 are still expected to occur within the study area since habitat (i.e., vegetation) conditions have not changed significantly in the last 11 years. However, species that are no longer common or may no longer be present within Fairview Park include the western toad *(Bufo boreas)*, common kingsnake *(Lampropeltis getulus)*, loggerhead shrike *(Lanius ludovicianus)*, coastal cactus wren *(Campylorhynchus brunneicapillus)*, and San Diego black-tailed jackrabbit *(Lepus californicus)*. These species are particularly susceptible to influences from urbanization and habitat fragmentation and were not observed by LSA in 2005 or 2006.

Increased predation pressures may have reduced the population of some of the reported species from 1995 since many are sensitive to urbanization and are easily disturbed or depredated by domestic/feral cats and dogs, as well as by observed natural predators such as the Cooper's hawk, red-tailed hawk, American kestrel, great horned owl, and coyote.

In addition, Fairview Park is somewhat isolated from nearby source populations for many native species, particularly fossorial (ground-dwelling) species like the black-tailed jackrabbit. Finally, species that require specific seasonal breeding conditions like the western toad, which breeds in standing or slow-moving fresh water, can become significantly reduced in number if breeding conditions are not suitable due to weather variation or habitat degradation, or if predation pressures increase.

A list of the animal species detected in 2005 and 2006 is included in Appendix B.

SPECIAL STATUS AND SPECIAL INTEREST SPECIES

This section addresses the special status and special interest species within the biological study area.

For purposes of this discussion, the term special status species refers to plants and animals occurring in the study area and designated as endangered, threatened or rare by State or federal agencies. Special interest species are those of current local, regional, or CDFG (State) concern.

Legal protection of special status and special interest species varies widely, from the relatively comprehensive protection afforded to species listed as endangered and/or threatened to no legal status at present. The CDFG, United States Fish and Wildlife Service (USFWS), local agencies, and various special interest groups (e.g., CNPS) publish watchlists of declining species. These lists often describe the general nature and perceived severity of the species' decline. Finally, species that are clearly not rare or threatened either statewide or regionally, but whose local populations are sparse, rapidly dwindling, or otherwise unstable, may be "of local interest."

The CNPS has developed an inventory of California's sensitive plant species, which is comprised of the following list:

Table A: California Native Plant Society Listed Plant Species Designations

List	Classification
1A	Presumed Extinct in California
1B	Rare or Endangered in California and Elsewhere
2	Rare or Endangered in California, More Common Elsewhere
3	Need More Information
4	Plants of Limited Distribution

Special Status and Special Interest Species Observed

LSA conducted several focused surveys for special status species, including sensitive plant species in vernal pool areas, and focused surveys for southern tarplant (CNPS List 1B species), burrowing owl (California Special Concern species), and coastal California gnatcatcher (federally threatened and California Special Concern species).

Sensitive plant and animal species observed in the Park in 2005 and 2006 include:

- Southern tarplant *(Centromadia parryi* var. *australis)*
- Small-flowered microseris *(Microseris douglasii* ssp. *platycarpha)*
- Southern California black walnut (*Juglans californica* var. *californica*; 8–12 individuals)
- Chaparral sand-verbena (*Abronia villosa* var. *aurita*; 2 individuals)
- Prostrate navarretia (*Navarretia prostrata*; est. 300 individuals)
- Vernal barley *(Hordeum intercedens)*
- Cooper's hawk *(Accipiter cooperii)*
- Burrowing owl *(Athene cunicularia)*–winter 2005
- Coastal California gnatcatcher *(Polioptila californica californica)*–December 2005, September 2006
- Yellow-breasted chat *(Icteria virens)*–spring 2006

Special Status Plant Species

No State or federally listed endangered, threatened, or rare plant species were found on the site.

Special Interest Plant Species

The special interest plant species detected by LSA in 2005/2006, including their status and detected area within Fairview Park, are described briefly below. An exception is California box-thorn *(Lycium californicum),* since it is still thought to exist in the area.

Southern Tarplant. Southern tarplant *(Centromadia parryi* var. *australis),* which is listed as a CNPS List 1B species, was observed in several areas throughout the study area (Figure 4). Under natural conditions, this shrubby annual with bright yellow flowers is typically observed in alkaline floodplains, coastal salt marsh margins, and vernally mesic grasslands, often in very dense stands. Within the study area it occurs in ruderal, disturbed areas such as disced areas and along the edges of dirt roads and trails. Approximately 50 plants were detected and mapped using GPS on September 10, 2005 (Figure 4).

Small-Flowered Microseris. Small-flowered microseris *(Microseris douglasii* ssp. *platycarpha)* is listed as a CNPS List 4 species. A few individuals of this species occur within the annual grasslands on the mesa near the main vernal pool.

Southern California Black Walnut. Southern California black walnut (*Juglans californica* var. *californica)* is listed as a CNPS List 4 species. A patch of 8–12 individuals is growing in the southwest corner of the west-facing bluff (Figure 2).

California Box-thorn. California box-thorn *(Lycium californicum)* is listed as a CNPS List 4 species. A few specimens of California box-thorn were found in 1995 in the disturbed Southern Coastal Bluff Scrub. This species was not detected in 2006 but is still thought to exist in the area.

Chaparral Sand-Verbena. Chaparral sand-verbena *(Abronia villosa* var. *aurita)* is listed as a CNPS List 1B species. Two individuals are growing in the alluvial scrub area in the northwest portion of the study area. The verbena was observed in June 2006 and was flowering in October 2006 along the east edge of the orange snow fencing around the revegetation site.

Prostrate Navarretia. Prostrate navarretia *(Navarretia prostrata)* is listed as a CNPS List 1B species. An estimated 300 individuals of prostrate navarretia were observed in the southern half of the main vernal pool.

California Evening Primrose. California evening primrose *(Oenothera californica* ssp. *californica)* is not listed as a State or federal special status species; however, Hamilton reported this population of local interest since it was the only one known in Orange County in 1995. In 2006 this low-growing plant with large white flowers was found in the sandy lowland area in the northern part of the study area.

Vernal Barley. Vernal barley *(Hordeum intercedens)* is listed as a CNPS List 3 species. This species was observed scattered along the western edge of the main vernal pool.

Special Status Animal Species

Coastal California Gnatcatcher. Coastal California gnatcatcher *(Polioptila californica californica)* is listed as a federal threatened species and is a CDFG California Special Concern species. Throughout the first half of the 1990s, California gnatcatchers, including a family group, were somewhat regularly detected in Fairview Park, particularly along the west-facing bluff in disturbed coastal bluff scrub. LSA detected two gnatcatchers during the nonbreeding season in the winter of 2005 in the revegetated mixed scrub areas west of the main parking lot and two in September 2006 (one in and around the mixed scrub area and the second in chenopod scrub west of Vernal Pools 1, 2, and 3 in the middle of the mesa). During a mid-October field visit, a young gnatcatcher was observed in the small drainage west of Placentia Avenue just north of the mixed scrub revegetation area adjacent to the parking lot. A protocol breeding season survey was conducted by LSA in spring 2006 with negative results. The report is in Appendix D.

Special Interest Animal Species

The special status and special interest wildlife species detected by LSA in 2005/2006, including their status and use area within Fairview Park, are described briefly below.

Cooper's Hawk. Cooper's hawk *(Accipiter cooperii)* is listed as a CDFG California Special Concern species when nesting. Cooper's hawks were observed foraging in the Park. Nesting has not been confirmed but could occur within the Park or in adjacent areas. Mature trees for nesting are present within the Park and are numerous in the surrounding neighborhood and at the adjacent Talbert Nature Preserve and Costa Mesa Golf Course.

Burrowing Owl. Burrowing owl *(Athene cunicularia)* is listed as a CDFG California Special Concern species. Burrowing owls are known to use the Park:

1. Migrant owl observed on November 18, 1994 by biologist Robert Hamilton;[1]
2. Wintering owl detected during 2001 east of Placentia Avenue as reported by Glenn Lukos Associates;[2]
3. Single wintering owl in 2002 observed by Glenn Lukos Associates and CDFG east of Placentia Avenue near a small ravine approximately 650 feet north of the main park entrance;[3]

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1 Hamilton, Robert A. 1995. Biological Constraints and Opportunities Analysis, Fairview Park, Costa Mesa. Fairview Park Master Plan as Appendix C, dated March 1998. Prepared for the City of Costa Mesa. 9 October. Costa Mesa, California.

2 Glenn Lukos Associates. 2003. Results of Wintering Burrowing Owl Surveys, Fairview Park, City of Costa Mesa, California.

3 Planning Division. 2004. *Fairview Park Multi-Purpose Trail for Bicyclists and Pedestrians Initial Study/Mitigated Negative Declaration*. Initial Study SCH No. 2004-021019. Costa Mesa, California: City of Costa Mesa.

4. Early December 2003 focused burrowing owl surveys by Glenn Lukos Associates found no burrowing owls east of Placentia Avenue;[1]
5. Mid December 2005 focused surveys by LSA found two wintering owls east of Placentia Avenue. The owls were in and around former California ground squirrel *(Spermophilus beecheyi)* burrows within the interior of the train tracks. The complex of owl- and squirrel-occupied burrows were surrounded by mowed ruderal vegetation between the train station and the new footbridge over Placentia Avenue.

During occasional surveys in spring 2006, LSA detected no burrowing owls within the Park.

LSA's 2005 focused survey report for burrowing owl was positive and is included in Appendix C.

Yellow-breasted Chat. Yellow-breasted chat *(Icteria virens)* is listed as a CDFG California Special Concern species. LSA detected two male chats during the breeding season in the late spring of 2006 in ruderal vegetation on both sides of the dirt trail at the junction of the north end of the west-facing bluff and the sandy alluvial lowlands and up to four individuals in the area near Talbert Nature Preserve.

If you have any questions about this report, please contact me at (949) 553-0666.

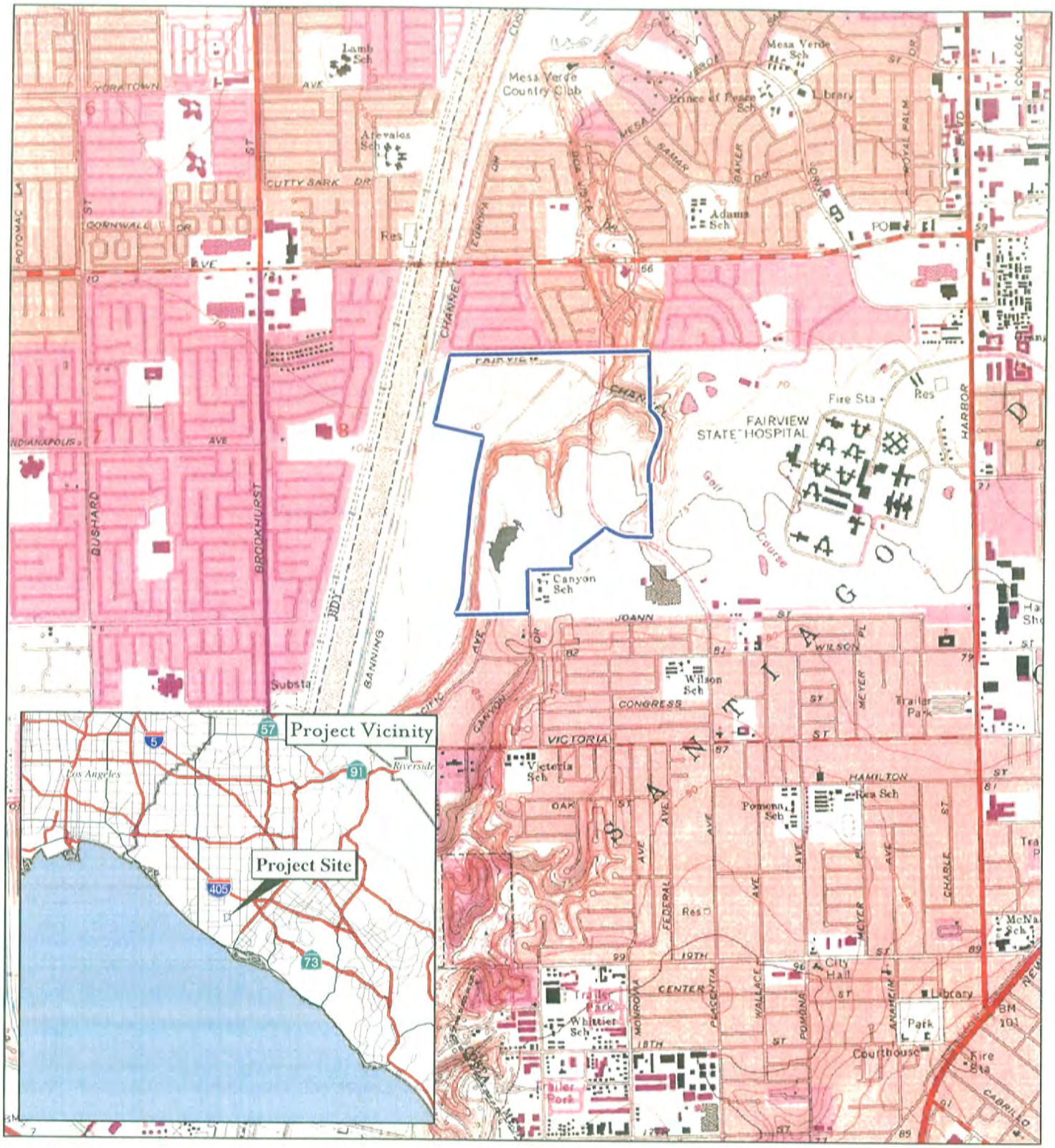
Sincerely,

LSA ASSOCIATES, INC.

Ingri Baroni
Senior Biologist

Attachments: Figure 1: Project Location
Figure 2: Existing Vegetation Communities
Figure 3: Vernal Pool Locations (West of Placentia Avenue)
Figure 4: 2005 Southern Tarplant Locations
Appendix A: Vascular Plant Species Observed
Appendix B: Animal Species Detected
Appendix C: Burrowing Owl Report
Appendix D: Coastal California Gnatcatcher Report

[1] Glenn Lukos Associates. 2003. Results of Wintering Burrowing Owl Surveys, Fairview Park, City of Costa Mesa, California.



LSA

FIGURE 1

Approximate Project Boundary

Vernal Pool Location

N

0 1,000 2,000 Feet

Fairview Park

Project Location Map

SOURCE: USGS 7.5' QUAD, NEWPORT BEACH, CA (1981)

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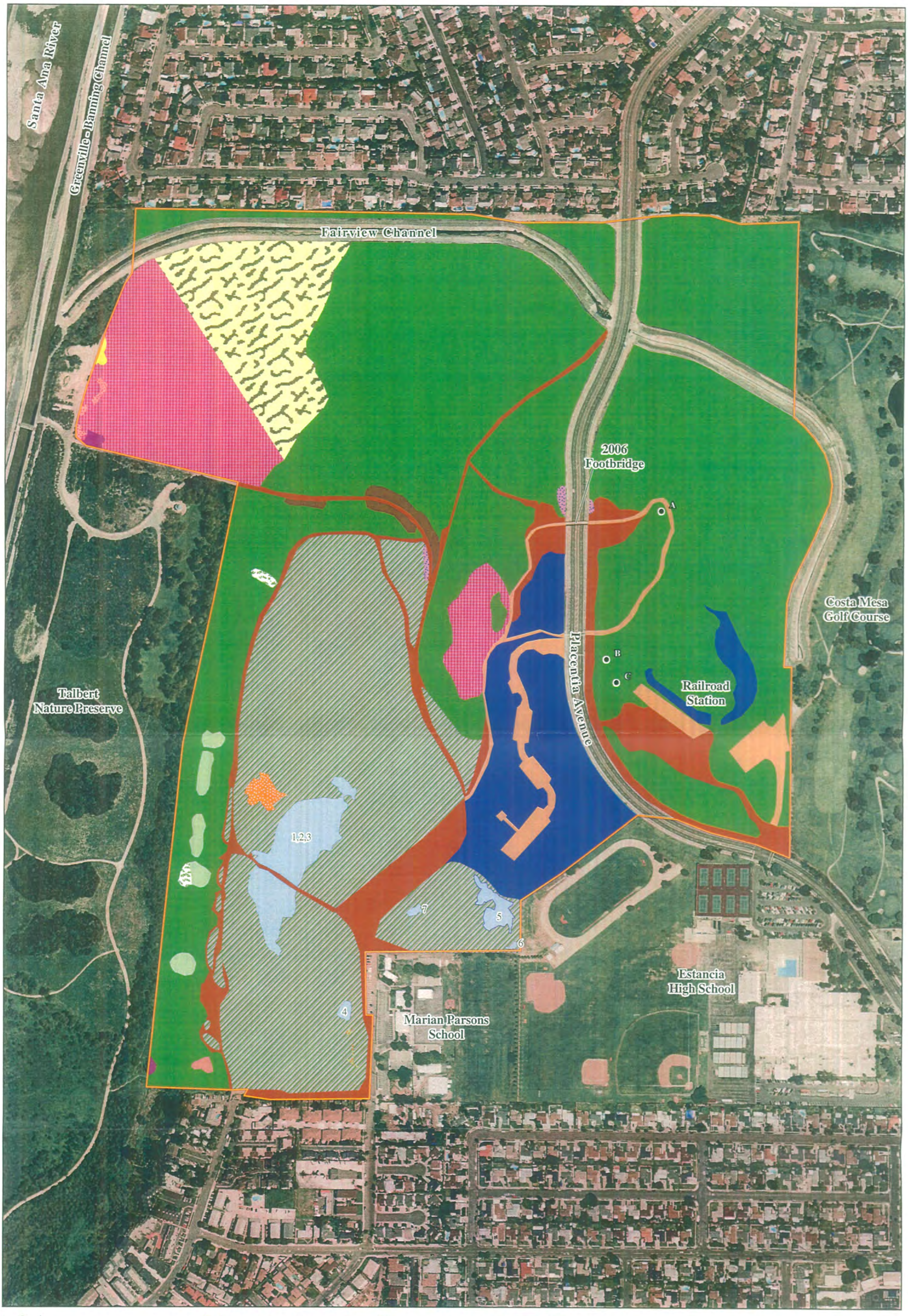

LSA

N

0 200 400

FEET

Project Boundary

Vegetation

- Southern Coastal Bluff Scrub
- Purple Sage Scrub
- Buckwheat Scrub
- Coyote Brush Scrub
- Coastal Sage Scrub (Restored)
- Floodplain Sage Scrub
- Chenopod Scrub
- Annual Grassland
- Ruderal
- Vernal Pool (ID #)
- Willow Riparian Scrub
- Mulefat Scrub
- Walnut Scrub
- Developed
- Ornamental Landscaping
- Disturbed or Barren
- Vernal Marsh
- Giant Reed *(Arundo donax)*
- Vernal Pools (Glenn Lukos and Chambers Group)

SOURCE: Eagle Aerial (2006), LSA (2006).

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FIGURE 2

Fairview Park

Existing Vegetation Communities

LSA

FIGURE 3

Project Boundary
Vernal Pool
Vernal Marsh

N

0 115 230
FEET

Note: Three vernal pools (A-C) are east of Placentia Avenue and are mapped on Figure 2.

Fairview Park

Vernal Pool Locations - West of Placentia Avenue

SOURCE: Eagle Aerial, 2006.

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LSA

FIGURE 4

Project Boundary
Southern Tarplant (*Centromadia parryi* ssp. *australis*)

N

0 115 230
FEET

SOURCE: Eagle Aerial, 2006.

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Fairview Park

2005 Southern Tarplant Locations

APPENDIX A

VASCULAR PLANT SPECIES OBSERVED

APPENDIX A

VASCULAR PLANT SPECIES OBSERVED

The following vascular plant species were observed in the study area by LSA biologist(s) Stan Spencer and Ingri Baroni during site surveys conducted in December 2005 and in 2006. Some plants were only observed in the 1995 Master Plan, as indicated below. All ornamental plantings within Fairview Park are not included in this list.

* Introduced, nonnative species
° Reported in the 1995 Master Plan, but not observed in 2005/2006

PTERIDOPHYTA	**FERNS AND FERN-ALLIES**
Marsileaceae	**Marsilea Family**
° *Marsilea vestita* ssp. *vestita*	Hairy pepperwort
GYMNOSPERMAE	**CONE-BEARING PLANTS**
Pinaceae	**Pine Family**
* *Pinus* sp.	Pine
ANGIOSPERMAE: DICOTYLEDONAE	**DICOT FLOWERING PLANTS**
Aizoaceae	**Carpet-Weed Family**
*° *Carpobrotus edulis*	Hottentot-fig
*° *Mesembryanthemum crystallinum*	Crystal ice plant
Amaranthaceae	**Amaranth Family**
* *Amaranthus albus*	Tumbling pigweed
Amaranthus blitoides	Prostrate pigweed
Anacardiaceae	**Sumac Family**
Malosma laurina	Laurel sumac
Rhus integrifolia	Lemonade berry
Rhus ovata	Sugar bush
*° *Schinus molle*	Peruvian pepper tree
* *Schinus terebinthifolius*	Brazilian pepper tree
Toxicodendron diversilobum	Poison oak
Apiaceae	**Carrot Family**
* *Conium maculatum*	Poison hemlock
* *Foeniculum vulgare*	Sweet fennel

Asclepiadaceae		**Milkweed Family**
°	*Araujia sericofera*	White bladder-flower
Asteraceae		**Sunflower Family**
	Ambrosia acanthicarpa	Annual bur-sage
°	*Ambrosia psilostachya*	Western ragweed
	Artemisia californica	California sagebrush
	Artemisia douglasiana	Mugwort
°	*Baccharis emoryi*	Emory baccharis
	Baccharis pilularis	Coyote bush
	Baccharis salicifolia	Mulefat
*°	*Carduus pycnocephalus*	Italian thistle
*	*Centaurea melitensis*	Tocalote
*°	*Centaurea solstitialis*	Yellow star-thistle
	Centromadia parryi ssp. *australis*	Southern tarplant
*	*Chrysanthemum coronarium*	Garland chrysanthemum
*	*Cirsium vulgare*	Bull thistle
	Conyza canadensis	Common horseweed
°	*Conyza coulteri*	Coulter's Horseweed
*	*Cotula coronopifolia*	African brass-buttons
*	*Cynara cardunculus*	Artichoke thistle
	Deinandra fasciculata	Fascicled tarweed
	Encelia californica	California encelia
*	*Filago gallica*	Narrow-leaved filago
	Gnaphalium californicum	California everlasting
*	*Gnaphalium luteo-album*	Weedy cudweed
°	*Gnaphalium palustre*	Lowland cudweed
	Grindelia camporum var. *camporum*	Big gumplant
	Hazardia squarrosa	Saw-toothed goldenbush
*	*Hedypnois cretica*	Crete hedypnois
°	*Helianthus annuus*	Western sunflower
	Heterotheca grandiflora	Telegraph weed
*	*Hypochaeris glabra*	Smooth cat's-ear
	Isocoma menziesii var. *vernonioides*	Coastal goldenbush
	Isocoma menziesii	Goldenbush
*	*Lactuca serriola*	Prickly lettuce
	Microseris douglasii ssp. *platycarpha*	Small-flowered microseris
*	*Picris echioides*	Bristly ox-tongue
	Psilocarphus brevissimus var. *brevissimus*	Dwarf woolly-heads
*	*Senecio vulgaris*	Common groundsel
*	*Silybum marianum*	Milk thistle
*	*Sonchus asper* ssp. *asper*	Prickly sow-thistle
*	*Sonchus oleraceus*	Common sow-thistle
	Stephanomeria exigua	Small wreath-plant
*	*Taraxacum officinale*	Common dandelion

Boraginaceae		**Borage Family**
	Amsinckia menziesii var. *intermedia*	Common fiddleneck
	Heliotropium curassavicum	Salt heliotrope
	Plagiobothrys leptocladus	Alkali popcorn-flower
Brassicaceae		**Mustard Family**
*	*Brassica nigra*	Black mustard
*	*Cardaria draba*	White-top, Hoary-cress
*	*Hirschfeldia incana*	Shortpod mustard
°	*Lepidium nitidum* var. *nitidum*	Shining peppergrass
*	*Raphanus sativus*	Wild radish
	Sibara virginica	Virginia rock-cress
*	*Sisymbrium altissimum*	Tall Tumble mustard
*	*Sisymbrium irio*	London rocket
Cactaceae		**Cactus Family**
	Opuntia littoralis	Coastal prickly pear
	Opuntia prolifera	Coastal cholla
Callitrichtaceae		**Water-Starwort Family**
°	*Callitrichte longipedunculata*	Long-stalked water-starwort
Capparaceae		**Caper Family**
	Isomeris arborea	Bladderpod
Caprifoliaceae		**Honeysuckle Family**
	Sambucus mexicana	Mexican elderberry
Caryophyllaceae		**Pink Family**
*	*Spergularia cf. bocconei*	Boccone's sand spurry
Chenopodiaceae		**Goosefoot Family**
°	*Atriplex lentiformis* ssp. *breweri*	Brewer's saltbush
	Atriplex lentiformis	Saltbush species
	Atriplex rosea	Redscale
*	*Atriplex semibaccata*	Australian saltbush
*	*Atriplex suberecta*	Sprawling saltbush
*	*Bassia hyssopifolia*	Five-hook bassia
*	*Chenopodium album*	Lamb's quarters
*°	*Chenopodium ambrosioides*	Mexican tea
	Chenopodium californicum	California goosefoot
*	*Chenopodium murale*	Nettle-leaved goosefoot
*	*Salsola tragus*	Russian-thistle
°	*Suaeda taxifolia*	Woolly sea-blite

Convolvulaceae		**Morning-Glory Family**
*	*Convolvulus arvensis*	Field bindweed
	Cressa truxillensis	Alkali weed
Crassulaceae		**Stonecrop Family**
	Crassula aquatica	Water pygmy-stonecrop
Cucurbitaceae		**Gourd Family**
	Cucurbita foetidissima	Calabazilla
	Marah macrocarpus	Wild cucumber
Elatinaceae		**Waterwort Family**
°	*Elatine* sp.	Waterwort
Euphorbiaceae		**Spurge Family**
	Chamaesyce maculata	Spotted spurge
*	*Chamaesyce serpens*	Spurge
	Croton californicus	California croton
	Croton setigerus	Doveweed
*	*Ricinis communis*	Castor bean
Fabaceae		**Legume Family**
	Lotus scoparius var. *scoparius*	Coastal deerweed
	Lupinus truncatus	Collar lupine
*	*Medicago polymorpha*	California burclover
*	*Melilotus alba*	White sweetclover
*	*Melilotus indica*	Yellow sweetclover
*	*Spartium junceum*	Spanish broom
*	*Trifolium fragiferum*	Strawberry clover
*	*Trifolium repens*	White clover
Fagaceae		**Beech Family**
	Quercus agrifolia var. *agrifolia*	Coast live oak
Frankeniaceae		**Frankenia Family**
	Frankenia salina	Alkali heath
Geraniaceae		**Geranium Family**
*°	*Erodium botrys*	Long-beaked filaree
*	*Erodium cicutarium*	Red-stemmed filaree
Hydrophyllaceae		**Waterleaf Family**
	Phacelia ramosissima	Branching phacelia
Juglandaceae		**Walnut Family**
	Juglans californica var. *californica*	Southern California black walnut

Lamiaceae		**Mint Family**
*	*Marrubium vulgare*	Horehound
	Salvia apiana	White sage
	Salvia leucophylla	Purple sage
	Salvia mellifera	Black sage
Lythraceae		**Loosestrife Family**
*	*Lythrum hyssopifolia*	Grass poly
Malvaceae		**Mallow Family**
°	*Malacothamnus fasciculatus*	Chaparral bush mallow
*	*Malva parviflora*	Cheeseweed
	Malvella leprosa	Alkali-mallow
Myoporaceae		**Myoporum Family**
*	*Myoporum laetum*	Myoporum
Nyctaginaceae		**Four O'Clock Family**
	Abronia villosa var. *aurita*	Chaparral sand-verbena
	Mirabilis californica	California wishbone bush
Oleaceae		**Olive Family**
*	*Olea europaea*	European olive
Onagraceae		**Evening Primrose Family**
	Epilobium pygmaeum	Smooth boisduvalia
	Oenothera californica ssp. *californica*	California evening primrose
Oxalidaceae		**Oxalis Family**
*	*Oxalis corniculata*	Creeping wood sorrel
Papaveraceae		**Poppy Family**
°	*Eschscholzia californica*	California poppy
Plantaginaceae		**Plantain Family**
	Plantago elongata	California alkali plantain
*	*Plantago major*	Common plantain
Platanaceae		**Sycamore Family**
	Platanus racemosa	Western sycamore
Polemoniaceae		**Phlox Family**
	Navarretia prostrata	Prostrate navarretia
Polygonaceae		**Buckwheat Family**
	Eriogonum cinereum	Gray coast buckwheat
	Eriogonum fasciculatum	California buckwheat

*°	*Polygonum arenastrum*	Common knotweed
*	*Polygonum argyrocoleon*	Silversheath knotweed
*	*Rumex crispus*	Curly dock
	Rumex salicifolius	Willow dock
Portulacaceae		**Purslane Family**
	Calandrinia ciliata	Red maids
*	*Portulaca oleracea*	Common purslane
Primulaceae		**Primrose Family**
*	*Anagallis arvensis*	Scarlet pimpernel
Rosaceae		**Rose Family**
	Heteromeles arbutifolia	Toyon
	Rosa californica	California rose
	Rubus ursinus	California blackberry
Salicaceae		**Willow Family**
	Salix exigua	Narrow-leaved willow
	Salix gooddingii	Goodding's black willow
Scrophulariaceae		**Figwort Family**
	Mimulus aurantiacus	Bush monkey flower
°	*Veronica peregrina* ssp. *xalapensis*	Mexican speedwell
Solanaceae		**Nightshade Family**
	Datura wrightii	Jimsonweed
°	*Lycium californicum*	California box thorn
°	*Lycopersicon esculentum*	Tomato
*	*Nicotiana glauca*	Tree tobacco
	Solanum americanum	White nightshade
	Solanum douglasii	Douglas' nightshade
*	*Solanum rostratum*	Buffalo berry
Urticaceae		**Nettle Family**
	Urtica dioica ssp. *holosericea*	Hoary nettle
Verbenaceae		**Vervain Family**
	Verbena bracteata	Bracted vervain
ANGIOSPERMAE: MONOCOTYLEDONAE		**MONOCOT FLOWERING PLANTS**
Arecaceae		**Palm Family**
	Washingtonia filifera	California fan palm

Cyperaceae		**Sedge Family**
	Cyperus eragrostis	Tall umbrella-sedge
	Cyperus esculentus	Yellow umbrella-sedge
	Eleocharis macrostachya	Pale spike-rush
°	*Scirpus cermius*	California club-rush
Iridaceae		**Iris Family**
	Sisyrinchium bellum	Blue-eyed grass
Juncaceae		**Rush Family**
°	*Juncus bufonius*	Toad rush
Liliaceae		**Lily Family**
	Agave sp.	Agave
*	*Yucca gloriosa*	Spanish dagger
Poaceae		**Grass Family**
°	*Alopecurus saccatus*	Howell's foxtail
*	*Arundo donax*	Giant reed
*	*Avena barbata*	Slender wild oat
*	*Avena fatua*	Common wild oat
*	*Bromus diandrus*	Ripgut grass
*	*Bromus hordeaceus*	Soft chess
*	*Bromus madritensis* ssp. *rubens*	Foxtail chess
*	*Cortaderia selloana*	Pampas grass
*°	*Crypsis alopecuroides*	Tall prickle grass
*	*Cynodon dactylon*	Bermuda grass
*	*Digitaria sanguinalis*	Crab grass
	Distichlis spicata	Saltgrass
*	*Eleusine indica*	Goose grass
*	*Gastridium ventricosum*	Nit grass
°	*Hordeum brachyantherum* ssp. *brachyantherum*	Meadow barley
	Hordeum intercedens	Vernal barley
*	*Hordeum marinum*	Mediterranean barley
*	*Hordeum murinum*	Foxtail barley
*°	*Hordeum murinum* ssp. *leporinum*	Bare barley
*°	*Lamarckia aurea*	Goldentop
	Leptochloa uninervia	Mexican sprangletop
	Leymus condensatus	Giant wild-rye
*	*Lolium multiflorum*	Italian ryegrass
*°	*Lolium perenne*	Perennial ryegrass
	Nassella sp.	Needlegrass species
*°	*Oryzopsis miliacea*	Millet mountain-rice
*	*Paspalum dilatatum*	Dallis grass
*	*Pennisetum clandestinum*	Kikuyu grass
*	*Pennisetum setaceum*	African fountain grass
	Phalaris lemmonii	Lemmon's canary grass

*	*Phalaris minor*	Littleseed canary grass
*	*Phalaris paradoxa*	Paradox canary grass
*	*Poa annua*	Annual bluegrass
*	*Polypogon monspeliensis*	Rabbitfoot grass
*	*Schismus barbatus*	Mediterranean grass
*	*Vulpia myuros* var. *hirsuta*	Foxtail fescue
Pontederiaceae		**Pickerel-Weed Family**
*°	*Eichhornia crassipes*	Common water hyacinth
Typhaceae		**Cat-Tail Family**
°	*Typha domingensis*	Southern cat-tail

APPENDIX B

ANIMAL SPECIES DETECTED

APPENDIX B

ANIMAL SPECIES DETECTED

This is a list of the conspicuous aerial insects, amphibians, reptiles, birds, and mammals noted in the study area by biologists Robert Hamilton, Richard Erickson, and Robert Fisher in 1995 (Plan 1998) and by LSA biologists in 2005 and 2006. Presence may be noted if a species is seen or heard, or identified by the presence of tracks, scat, or other signs.

- • Species not native to the study area
- ° Observed in 1995 only

LEPIDOPTERA	**BUTTERFLIES**
Papilionidae	**Swallowtails**
° *Papilio zelicaon*	Anise swallowtail
Papilio rutulus	Western tiger swallowtail
Pieridae	**Whites and Sulphurs**
Pontia protodice	Checkered white
* *Pieris rapae*	Cabbage white
° *Pieris sisymbrii sisymbrii*	Common white
Lycaenidae	**Gossamer-Wing Butterflies**
° *Brephidium exilie*	Western pygmy-blue
° *Leptotes marina*	Marine blue
Nymphalidae	**Brush-Footed Butterflies**
Nymphalis antiopa	Mourning cloak
Vanessa cardui	Painted lady
° *Vanessa anabella*	West coast lady
° *Coenonympha tullia California*	California ringlet
Danaus plexippus	Monarch
AMPHIBIA	**AMPHIBIANS**
Plethodontidae	**Lungless Salamanders**
° *Batrachoseps nigriventris*	Black-bellied slender salamander
Bufonidae	**True Toads**
° *Bufo boreas*	Western toad
Hylidae	**Treefrogs and Relatives**
Pseudacris regilla	Pacific chorus frog

REPTILIA	REPTILES
Phrynosomatidae	**Phrynosomatid Lizards**
Sceloporus occidentalis	Western fence lizard
Uta stansburiana	Common side-blotched lizard
Scincidae	**Skinks**
° *Eumeces skiltonianus*	Western skink
AVES	**BIRDS**
Anatidae	**Ducks, Geese, and Swans**
° *Anas americana*	American wigeon
Anas platyrhynchos	Mallard
Phalacrocoracidae	**Cormorants**
Phalacrocorax auritus	Double-crested cormorant
Ardeidae	**Herons, Bitterns, and Allies**
Ardea herodias	Great blue heron
Ardea alba	Great egret
Egretta thula	Snowy egret
Cathartidae	**New World Vultures**
Cathartes aura	Turkey vulture
Accipitridae	**Hawks, Kites, Eagles, and Allies**
° *Pandion haliaetus*	Osprey
° *Elanus leucurus*	White-tailed kite
Circus cyaneus	Northern harrier
° *Accipiter striatus*	Sharp-shinned hawk
Accipiter cooperii	Cooper's hawk
° *Buteo lineatus*	Red-shouldered hawk
Buteo jamaicensis	Red-tailed hawk
Falconidae	**Caracaras and Falcons**
Falco sparverius	American kestrel
° *Falco peregrinus*	Peregrine falcon
Charadriidae	**Plovers and Lapwings**
Charadrius vociferus	Killdeer
Scolopacidae	**Sandpipers, Phalaropes, and Allies**
Tringa melanoleuca	Greater yellowlegs
° *Numenius americanus*	Long-billed curlew
° *Limosa fedoa*	Marbled godwit

°	*Calidris mauri*	Western sandpiper
°	*Calidris minutilla*	Least sandpiper
°	*Limnodromus scolopaceus*	Long-billed dowitcher
°	*Gallinago gallinago*	Common snipe
°	*Phalaropus fulicaria*	Red phalarope
Laridae		**Skuas, Gulls, Terns, and Skimmers**
	Larus delawarensis	Ring-billed gull
	Larus occidentalis	Western gull
Columbidae		**Pigeons and Doves**
*	*Columba livia*	Rock (Feral) pigeon
*°	*Streptopelia chinensis*	Spotted dove
	Zenaida macroura	Mourning dove
	Columbina passerina	Common ground-dove
Strigidae		**Typical Owls**
	Bubo virginianus	Great horned owl
	Athene cunicularia	Burrowing owl
Apodidae		**Swifts**
	Chaetura vauxi	Vaux's swift
	Aeronautes saxatilis	White-throated swift
Trochilidae		**Hummingbirds**
	Archilochus alexandri	Black-chinned hummingbird
	Calypte anna	Anna's hummingbird
	Selasphorus sasin/ rufus	Rufous/Allen's hummingbird
	Selasphorus sasin	Allen's hummingbird
Picidae		**Woodpeckers and Allies**
	Colaptes auratus	Northern flicker
Tyrannidae		**Tyrant Flycatchers**
	Contopus cooperi	Olive-sided flycatcher
	Empidonax difficilis	Pacific-slope flycatcher
	Sayornis nigricans	Black phoebe
	Sayornis saya	Say's phoebe
	Myiarchus cinerascens	Ash-throated flycatcher
	Tyrannus vociferans	Cassin's kingbird
	Tyrannus verticalis	Western kingbird
Laniidae		**Shrikes**
°	*Lanius ludovicianus*	Loggerhead shrike
Corvidae		**Crows and Jays**
	Corvus brachyrhynchos	American crow

Corvus corax	Common raven
Hirundinidae	**Swallows**
Stelgidopteryx serripennis	Northern rough-winged swallow
Petrochelidon pyrrhonota	Cliff swallow
Hirundo rustica	Barn swallow
Aegithalidae	**Long-Tailed Tits and Bushtits**
Psaltriparus minimus	Bushtit
Troglodytidae	**Wrens**
° *Campylorhynchus brunneicapillus*	Cactus wren
Thryomanes bewickii	Bewick's wren
Troglodytes aedon	House wren
Sylviidae	**Old World Warblers and Gnatcatchers**
Polioptila caerulea	Blue-gray gnatcatcher
Polioptila californica californica	Coastal California gnatcatcher
Turdidae	**Thrushes**
Sialia mexicana	Western bluebird
° *Catharus guttatus*	Hermit thrush
Turdus migratorius	American robin
Timaliidae	**Babblers**
Chamaea fasciata	Wrentit
Mimidae	**Mockingbirds and Thrashers**
Mimus polyglottos	Northern mockingbird
Sturnidae	**Starlings**
* *Sturnus vulgaris*	European starling
Motacillidae	**Wagtails and Pipits**
° *Anthus rubescens*	American pipit
Bombycillidae	**Waxwings**
Bombycilla cedrorum	Cedar waxwing
Parulidae	**Wood Warblers**
Vermivora celata	Orange-crowned warbler
Dendroica petechia	Yellow warbler
Dendroica coronata	Yellow-rumped warbler
Oporornis tolmiei	MacGillivray's warbler
Geothlypis trichas	Common yellowthroat
Wilsonia pusilla	Wilson's warbler
Icteria virens	Yellow-breasted chat

Emberizidae		**Emberizids**
	Pipilo maculatus	Spotted towhee
	Pipilo crissalis	California towhee
	Passerculus sandwichensis	Savannah sparrow
	Melospiza melodia	Song sparrow
°	*Melospiza lincolnii*	Lincoln's sparrow
	Zonotrichia leucophrys	White-crowned sparrow
Cardinalidae		**Cardinals, Saltators, and Allies**
	Passerina caerulea	Blue grosbeak
	Passerina amoena	Lazuli bunting
Icteridae		**Blackbirds**
	Agelaius phoeniceus	Red-winged blackbird
	Agelaius tricolor	Tricolored blackbird
	Sturnella neglecta	Western meadowlark
	Euphagus cyanocephalus	Brewer's blackbird
	Molothrus ater	Brown-headed cowbird
Fringillidae		**Fringilline and Cardueline Finches and Allies**
	Carpodacus mexicanus	House finch
°	*Carduelis pinus*	Pine siskin
	Carduelis psaltria	Lesser goldfinch
	Carduelis lawrencei	Lawrence's goldfinch
	Carduelis tristis	American goldfinch
Passeridae		**Old World Sparrows**
*	*Passer domesticus*	House sparrow
MAMMALIA		MAMMALS
Leporidae		**Rabbits and Hares**
	Sylvilagus audubonii	Desert cottontail
°	*Lepus californicus*	Black-tailed jackrabbit
Sciuridae		**Squirrels, Chipmunks, and Marmots**
	Spermophilus beecheyi	California ground squirrel
Geomyidae		**Pocket Gophers**
	Thomomys bottae	Botta's pocket gopher
Canidae		**Foxes, Wolves, and Allies**
	Canis latrans	Coyote

Taxonomy and nomenclature are based on the following:

- **Butterflies:** North American Butterfly Association (2001; NABA checklist & English names of North American butterflies, second edition; North American Butterfly Association, Morristown, New Jersey).
- **Amphibians and Reptiles:** Crother, B.I., et al. (2000; Scientific and standard English names of amphibians and reptiles of North America north of Mexico, with comments regarding confidence in our understanding. *Herpetological Circular* 29; and 2003 update) for species taxonomy and nomenclature. Stebbins, R.C. (2003; A Field Guide to Western Reptiles and Amphibians, third edition, Houghton Mifflin, Boston) for sequence and higher-order taxonomy.
- **Birds:** American Ornithologists' Union (1998; The A.O.U. Checklist of North American Birds, seventh edition; American Ornithologists' Union, Washington D.C.; and 2000, 2002, 2003, 2004, 2005 and 2006 supplements).
- **Mammals:** Grenfell, W.E., Parisi, MD, and McGriff, D. (2003; Complete list of amphibians, reptiles, birds and mammals in California. California Department of Fish and Game; http://www.dfg.ca.gov/whdab/pdfs/species_list.pdf).

APPENDIX C

BURROWING OWL REPORT

LSA

LSA ASSOCIATES, INC.
20 EXECUTIVE PARK, SUITE 200
IRVINE, CALIFORNIA 92614-4731
949.553.0666 TEL
949.553.8076 FAX

OTHER OFFICES:
BERKELEY
PT. RICHMOND
FT. COLLINS
RIVERSIDE
ROCKLIN

October 17, 2006

Baltazar Mejia, Sr. Engineer
City of Costa Mesa
77 Fair Drive
Costa Mesa, CA 92628

Subject: Burrowing Owl Survey Report, Fairview Park, City of Costa Mesa, California

Dear Mr. Mejia:

LSA Associates, Inc. (LSA) is pleased to submit this summary report for winter and breeding season burrowing owl *(Athene cunicularia)* surveys at Fairview Park (Park) in the City of Costa Mesa, Orange County, California (Figure 1). Burrowing owls are a United States Fish and Wildlife Service (USFWS) bird of conservation concern (BCC) and a California Department of Fish and Game (CDFG) California special concern species (CSC). Four focused survey visits were completed in the winter of 2005 and followed the recommended guidelines prepared by the California Burrowing Owl Consortium (CBOC).[1] Spring surveys were completed in 2006 in conjunction with additional LSA surveys throughout the study area.

In December 2005, LSA observed two wintering burrowing owls during two of the four survey visits. These two burrowing owls were observed adjacent to and in nearby burrows in the ruderal field between the model railroad station and the new (2005–2006) footbridge over Placentia Avenue. No burrowing owls were observed during the LSA breeding season surveys.

Wintering burrowing owl surveys have been conducted in this area previously with both positive and negative results. In December 2003, Glenn Lukos Associates conducted focused winter surveys east of Placentia Avenue with negative findings; however, in 2002, they reported a single wintering burrowing owl east of Placentia Avenue in suitable habitat in a small ravine, which had become overgrown and degraded by the time of their survey in December 2003.[2]

STUDY AREA

LSA conducted two sessions of burrowing owl surveys within Fairview Park. The Park is just over 200 acres and straddles Placentia Avenue at 2501 Placentia Avenue in the coastal city of Costa Mesa in Orange County, California (Figure 1). This study area is approximately 2.5 miles from the Pacific Ocean and west of State Route 55 (SR-55), with Adams Avenue to the north and Victoria Street to the south. Immediately adjacent to Fairview Park is a residential community to the north, the Costa Mesa Golf Course to the east, and Marion Parsons School and Estancia High School to the south. Talbert Nature Preserve abuts the western edge of Fairview Park, with the Santa Ana River and the City of Huntington Beach further to the west. The western portion of Fairview Park is atop a bluff near the Santa Ana River.

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1 California Burrowing Owl Consortium. Burrowing Owl Survey Protocol and Mitigation Guidelines. April 1993.

2 Glenn Lukos Associates. Results of Wintering Burrowing Owl Surveys, Fairview Park, City of Costa Mesa, California. December 29, 2003.

Specifically, the study area is located within Section 8 in Township 6 South, Range 10 West with approximate Universal Transverse Mercator coordinates of $^{4}12^{469m}$ by $^{37}25^{750m}$ along the north, $^{4}12^{536m}$ by $^{37}24^{642m}$ along the south, $^{4}13^{340m}$ by $^{37}25^{282m}$ along the east, and $^{4}12^{567m}$ by $^{37}25^{196m}$ along the west as shown on the 7.5-minute series United States Geological Survey (USGS) topographic *Newport Beach, California* quadrangle map. Area topography includes a low-lying area in the northern portion of the study area, with rolling slopes and a flat mesa to the south and east. Elevation ranges from 1.5 meters (m) (5 feet [ft]) to 24 m (80 ft) above mean sea level. Most of the study area is vegetated with ruderal exotic species including extensive patches of black mustard *(Brassica nigra)* and sweet fennel *(Foeniculum vulgare)* (Figure 2).

There are over 100 acres of habitat potentially suitable for burrowing owl use during both the winter (i.e., migratory, nonbreeding) and breeding seasons. These areas are primarily grassland and ruderal habitats and, in general, are located in the north and east portions of the Park and the ruderal mesa along the west edge. The southern area also has potential habitat but is adjacent to school and residential areas and is highly disturbed by pedestrian and model airplane activity. The central area of the Park is similarly not suitable for burrowing owls due to heavy use by Park visitors and their pets (e.g., dogs). This area is planted with ornamental trees and turf grass surrounding a series of parking lots and is well maintained.

METHODOLOGY

LSA biologists followed the recommended Burrowing Owl Survey Protocol while conducting nonbreeding winter season surveys in 2005. LSA also conducted several breeding season surveys in conjunction with additional field work throughout Fairview Park (Table A).

Table A: Survey Conditions and Results

Nonbreeding Season Surveys				
Date 2005	**Time**	**Conditions**	**No. of Owls; Owl Sign**	**Surveyors**
Dec 19	0545–0845	Low 60–30% cover, cool, calm	None	IB, LS
Dec 20	1445–1745	30% cover, mild–cool, calm	None	IB, LS
Dec 21	1445–1745	25% cover, mild–cool, light breeze	2 owls at burrows east of Placentia Ave.	IB, LS
Dec 22	0600–0900	Low coastal fog–clearing, cool–mild, calm	2 owls at burrows east of Placentia Ave.	IB, LS
Breeding Season Surveys				
Date 2006	**Time**	**Conditions**	**No. of Owls; Owl Sign**	**Surveyors**
April 24	0700–0930	Clear, mild, calm	None	IB
May 3	0715–1045	Overcast, mild, light breeze	None	IB, LD
May 11	0815–1130	Overcast, cool–mild, calm	None	IB
May 24	0715–0915	Clear, mild, calm–light air	None	IB, MW

Date 2005	Time	Conditions	No. of Owls; Owl Sign	Surveyors
May 31	0815–1100	Partly cloudy, mild, light air	None	MI
June 7	0630–0830	Overcast, mild, calm	None	RE, PS
June 20	0830–1400	Overcast–clearing, mild, light air–light breeze	None	IB, SS

Beaufort Scale and seaman's terms are used to describe the wind speed.
Surveyors: IB: Ingri Baroni; LD: Liz Delk; LS: Leo Simone; MI: Marshall Iliff; MW: Michael Weller; PS: Paul Schwartz; RE: Richard Erickson; SS: Stan Spencer

The surveys for burrowing owls implemented a transect method using one or two biologists spaced to allow for complete visual coverage of the ground. This technique was used in the grassland and ruderal areas that had sparse vegetation and open areas. The densely vegetated ruderal and sage scrub communities were surveyed along their periphery, with excursions into the dense vegetation to look for burrows.

According to the CBOC guidelines, occupied burrowing owl burrows are determined by either observing a burrowing owl at the burrow or finding owl sign including molted feathers, cast pellets, prey remains, and/or excrement at or near the burrow entrance or finding a hole of suitable size that did not have cobwebs across the entrance.

RESULTS

Two burrowing owls were found at burrows in the study area in the winter of 2005 (Figure 2). Two burrowing owls were observed on December 21 and 22, 2005, in the flat, ruderal habitat associated with the model railroad and station. There were also several areas with potentially useable burrows. Most of these burrows were observed along the east side of Placentia Avenue in the area north of Fairview Channel and in the flat, ruderal habitat associated with the model railroad. With the exception of the burrows being actively used by the two burrowing owls, the potential burrows did not have sign of owl use or occupation but could be modified by an owl for future use. Many of the potential burrowing owl burrows were being used by California ground squirrels *(Spermophilus beecheyi)*. The burrows being used by the owls in 2005 appeared to have been former ground squirrel burrows.

One reason burrowing owls may not have been detected within Fairview Park during the 2006 breeding season was the change in the seasonal vegetation conditions. In the spring of 2006, much of the area was heavily overgrown with tall, nonnative vegetation, including black mustard and sweet fennel. In the spring of 2006, the area that formerly had the two burrowing owls at burrows in December 2005 was densely vegetated with black mustard and sweet fennel (approximately 4–6 feet tall). Other areas within the study area were also heavily vegetated with similar ruderal vegetation including the lower sandy area just south of the Fairview Channel and west of Placentia Avenue and the west mesa. Burrowing owls generally are associated with open fields where visibility is unobscured. Winter conditions had low-growing vegetation, which allowed for suitable visibility for ground dwelling (i.e., fossorial) owls. It should be noted that the ruderal vegetation within Fairview Park is occasionally cut and/or disked as part of maintenance.

Based on surveys in 2005 and 2006, and prior observations in 2002 and 2003, burrowing owls appear to be using Fairview Park for over-wintering during migration. There is also potential for year-round (i.e., breeding) use based on the presence of suitable open flat or gently rolling-hill topography. The

area would be more suitable for both over-wintering and potential year-round use by owls if ruderal vegetation were cleared in the early spring before it becomes tall and creates unsuitable conditions for burrowing owls and if the area remained relatively undisturbed by predatory animals and human activity.

Please contact Art Homrighausen or me at (949) 553-0666 if you have any questions regarding this report.

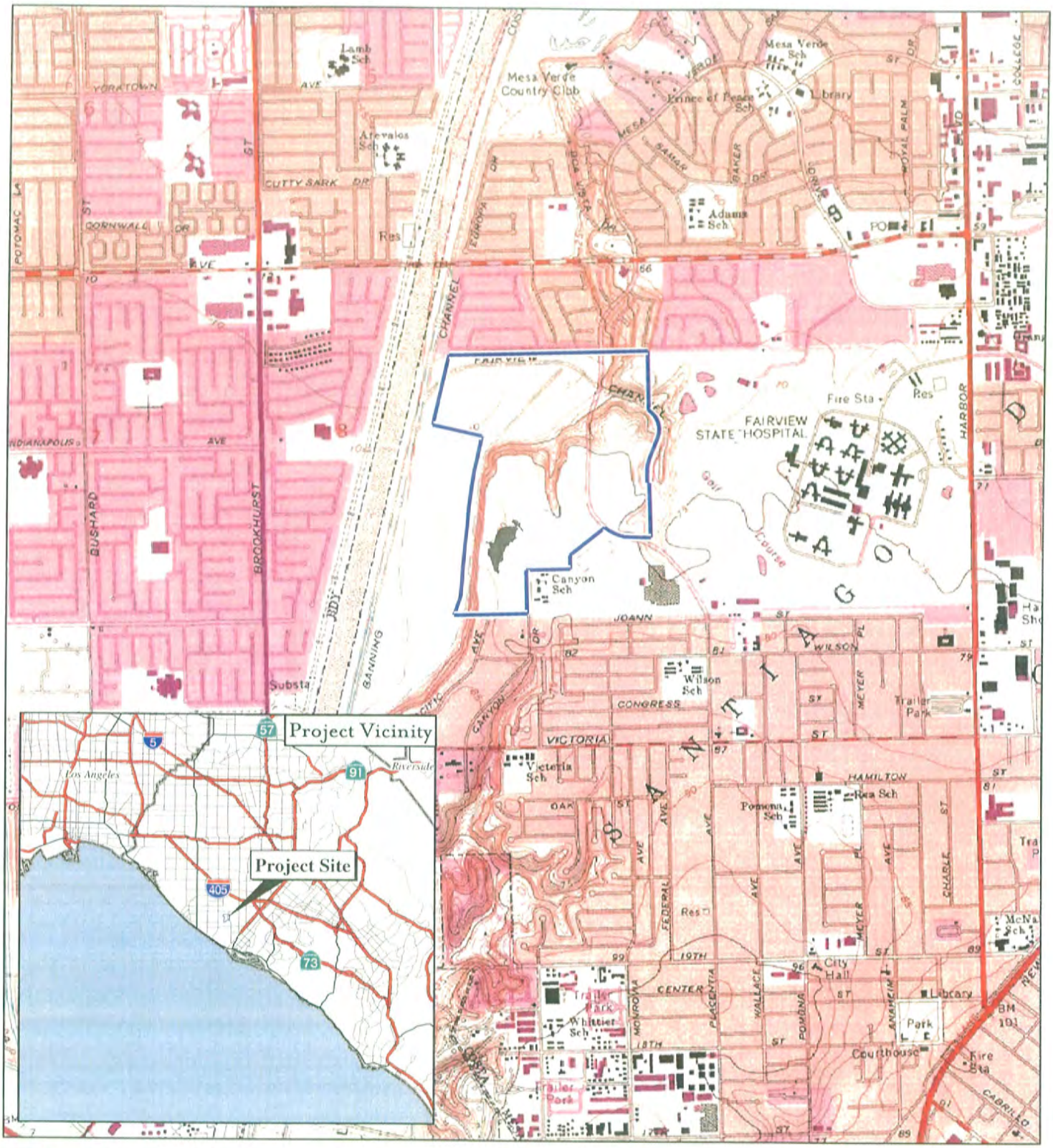
Sincerely,

LSA ASSOCIATES, INC.

Ingri Baroni
Biologist

cc: Chris Webb, Moffatt & Nichol

Attachments: Figure 1: Project Location
Figure 2: Burrowing Owl Wintering Use Area



LSA

FIGURE 1

Fairview Park

Project Location Map

SOURCE: USGS 7.5' QUAD, NEWPORT BEACH, CA (1981)

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LSA

Legend

Approximate Project Boundary

Burrowing Owl Area

N

0 250 500 Feet

SOURCE: EagleAerial (4/06); LSA (5/06)

I:\MAN530\GIS\burrowing_owl_2005.mxd (11/17/2006)

FIGURE 2

Fairview Park

2005 Burrowing Owl Wintering Area

APPENDIX D

COASTAL CALIFORNIA GNATCATCHER REPORT

LSA

LSA ASSOCIATES, INC.
20 EXECUTIVE PARK, SUITE 200
IRVINE, CALIFORNIA 92614

949.553.0666 TEL
949.553.8076 FAX

BERKELEY
CARLSBAD
COLMA
FORT COLLINS
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROCKLIN
SAN LUIS OBISPO

October 17, 2006

Mr. Daniel Marquez
U.S. Fish and Wildlife Service
Carlsbad Field Office
6010 Hidden Valley Road
Carlsbad, CA 92011

Dr. John Gustafson
Habitat Conservation Planning Branch
California Department of Fish and Game
1416 Ninth Street, Suite 1341
Sacramento, CA 95814

Subject: Coastal California Gnatcatcher Breeding Season Survey Results, April 24 to June 7, 2006, Fairview Park, City of Costa Mesa, Orange County, California

Dear Mr. Marquez and Dr. Gustafson:

This letter report documents results of protocol surveys for the coastal California gnatcatcher *(Polioptila californica californica)* conducted by LSA Associates, Inc. (LSA) on an approximately 200-acre study area called Fairview Park. Suitable habitat within Fairview Park in Costa Mesa, Orange County, California (Figure 1; figures attached) was surveyed in 2006.

Coastal California gnatcatchers were not detected within the study area during the six focused breeding season surveys.

STUDY AREA

Fairview Park is approximately 200 acres and straddles Placentia Avenue at 2501 Placentia Avenue in the coastal city of Costa Mesa in Orange County, California (Figure 1). This study area is west of State Route 55 (SR-55) with Adams Avenue to the north and Victoria Street to the south. Talbert Nature Preserve abuts the western edge of Fairview Park with the Santa Ana River and the City of Huntington Beach further to the west. The western portion of Fairview Park is atop a bluff near the Santa Ana River. The study area is approximately 2.5 miles from the Pacific Ocean.

Specifically, the study area is located within Section 8 in Township 6 South, Range 10 West with approximate Universal Transverse Mercator (UTM) coordinates of $^{4}12^{469m}$ by $^{37}25^{750m}$ along the north, $^{4}12^{536m}$ by $^{37}24^{642m}$ along the south, $^{4}13^{340m}$ by $^{37}25^{282m}$ along the east, and $^{4}12^{567m}$ by $^{37}25^{196m}$ along the west as shown on the 7.5-minute series United States Geological Survey (USGS) topographic *Newport Beach, California* quadrangle map. The California gnatcatcher survey focused on two areas. One area was along the west-facing bluff of Fairview Park. This approximately 2,500 foot (ft) long slope is vegetated with saltbush/coastal bluff scrub and has central UTM coordinates of $^{4}12^{500m}$ by $^{37}24^{900m}$. This area was a historic gnatcatcher use area in the early 1990s and was a suspected breeding area in 1995.[1] The second survey focus area is vegetated with restored coastal sage scrub and is approximately 2 acres with central UTM coordinates of $^{4}12^{928m}$ by $^{37}25^{254m}$.

Area topography includes a low-lying area in the northern portion of the study area with rolling slopes and a flat mesa with an elevation range from 1.5 meters (m) (5 ft) to 24 m (80 ft) above mean sea level.

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1 Biological Constraints and Opportunities Analysis, Fairview Park, Costa Mesa. October 9, 1995. Prepared by Robert A. Hamilton for the City of Costa Mesa Community Services Department.

Coastal sage scrub vegetation with potential for coastal California gnatcatcher use is present on slightly sloping terrain west of Placentia Avenue in the middle of Fairview Park (Figure 2). Most of the study area is vegetated with ruderal species including extensive patches of black mustard *(Brassica nigra)* and sweet fennel *(Foeniculum vulgare)*.

METHODS

A presurvey notification letter dated April 24, 2006, was sent by LSA to the California Department of Fish and Game (CDFG) and the United States Fish and Wildlife Service (USFWS) via facsimile. A phone call notification was also made to Daniel Marquez of the USFWS. Biologists Ingri (Quon) Baroni, Richard Erickson, and Marshall Iliff conducted the six protocol coastal California gnatcatcher surveys from April 24 to June 7, 2006. Ingri Baroni conducted surveys pursuant to Federal 10(a)(1)(A) Permit TE-812740-3 (July 7, 2003–July 6, 2006). Richard Erickson and Marshall Iliff conducted surveys pursuant to the USFWS Federal 10(a)(1)(A) Permit TE-777965-7 (May 10, 2004–May 9, 2007). All LSA personnel are using a temporary authorization from the CDFG (May 12, 2003–March 31, 2007) in lieu of a Memorandum of Understanding between LSA and the CDFG.

During each survey, a biologist walked slowly along the edge of scrub habitats and periodically played a taped recording of a calling coastal California gnatcatcher along the survey route. The surveying biologist waited for several minutes after each playing to look and listen for gnatcatchers. Six protocol coastal California gnatcatcher surveys were conducted (Table A).

Table A: Survey Conditions

Date 2006	Time	Weather Conditions	Surveyor
April 24	0700–0930	Clear, cool (60°F), calm	IB
May 3	0715–1045	Overcast, mild, calm–light breeze	IB
May 11	0815–1130	Overcast, cool–mild (66°F), calm	IB
May 24	0715–0915	Clear, mild–warm, humid, calm–light air	IB, MW
May 31	0815–1100	Partly cloudy, mild, calm–light air	MI
June 7	0630–0830	Overcast w/fog–clearing, cool, calm	RE, PS

Beaufort Scale and seaman's terms are used to describe the wind speed.
Surveyors: IB= Ingri Baroni; MI= Marshall Iliff; MW= Michael Weller; PS= Paul Schwartz; RE= Richard Erickson

RESULTS

No coastal California gnatcatchers were detected during the six focused gnatcatcher breeding season surveys; however, LSA has detected California gnatcatchers at Fairview Park outside the breeding season. During a burrowing owl *(Athene cunicularia)* survey on December 20, 2005, LSA detected one or two California gnatcatchers in the sage scrub area in the middle of Fairview Park. In addition, on September 18, 2006, LSA biologist Ingri Baroni observed two coastal California gnatcatchers: one gnatcatcher was calling occasionally in the sage scrub area mentioned above and a second gnatcatcher was observed in a cluster of approximately five shrubs near the western edge of the vernal pool in the southwest central portion of Fairview Park.

Breeding coastal California gnatcatchers were not documented using Fairview Park in the spring of 2006, although the area has recently been documented to have California gnatcatchers during the

nonbreeding season. These nonmigratory birds are likely to have been using the area for dispersal or foraging in the fall (2006) and winter (2005) seasons. Despite no recent documentation of breeding, there is potential for breeding California gnatcatchers, particularly in the central sage scrub area.

Also of note is the brown-headed cowbird *(Molothrus ater)*, a brood parasite of coastal California gnatcatchers and other passerines. This avian species was detected in low numbers on several visits (e.g., four on April 24, one on May 24, three on May 31, and four on June 7).

A list of animals detected in the study area is included in Appendix A.

If you have any questions about this report, please contact Art Homrighausen or me at (949) 553-0666.

Sincerely,

LSA ASSOCIATES, INC.

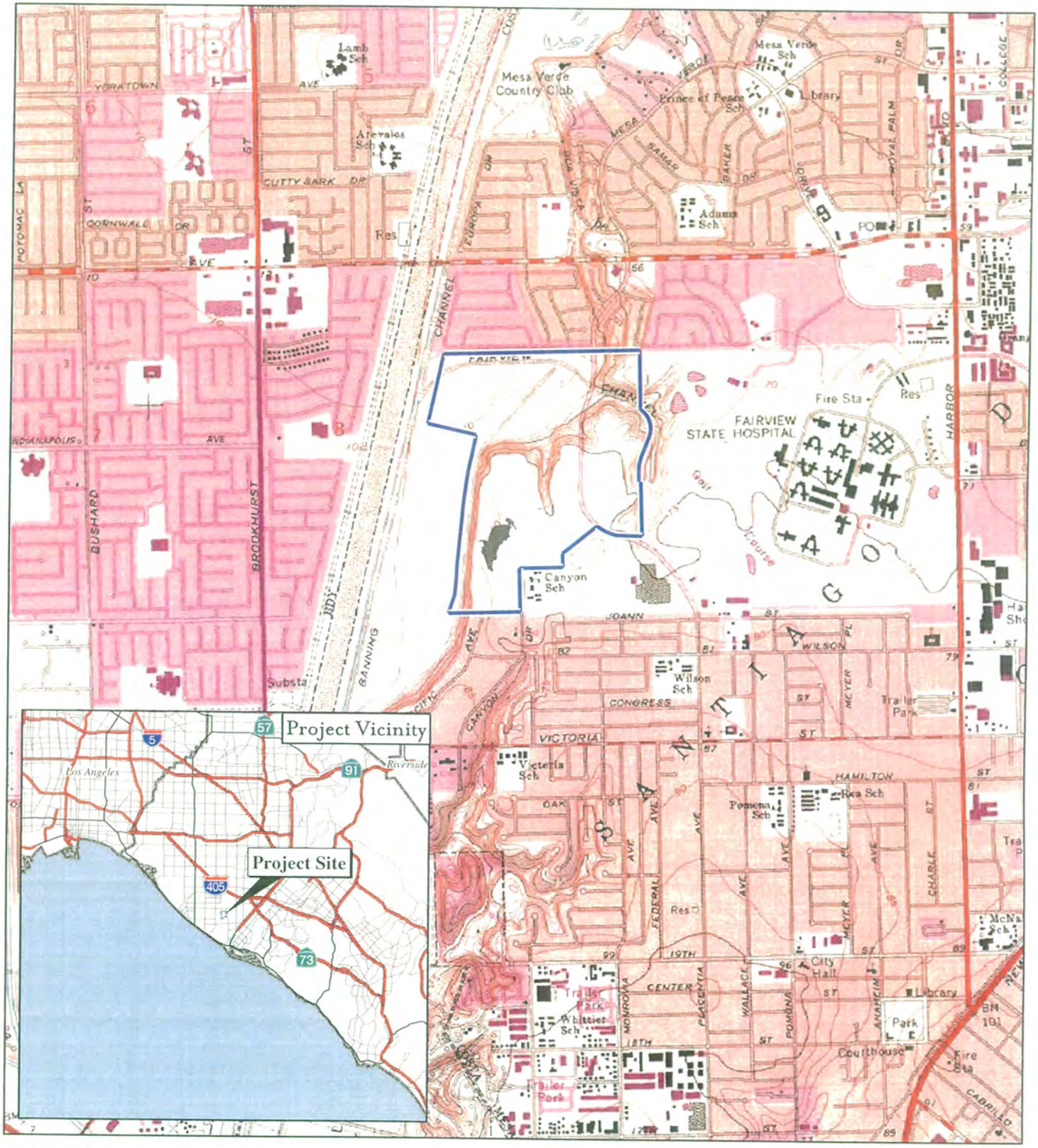
Ingri Baroni
Biologist

Attachments: Figure 1: Project Location
Figure 2: Site Photos
Appendix A: Animal Species Detected
Appendix B: U.S. Fish and Wildlife Service 45-Day Survey Report
Appendix C: California Native Species Field Survey Summary Form

cc: Baltazar Mejia, Sr. Engineer City of Costa Mesa
Chris Webb, Moffatt & Nichol

I CERTIFY THAT THE INFORMATION IN THIS SURVEY REPORT AND ATTACHED EXHIBITS FULLY AND ACCURATELY REPRESENTS MY WORK:

SURVEYOR:	PERMIT NUMBER	DATE:
Ingri (Quon) Baroni	TE-812740-3	October 6, 2006
Marshall Iliff	TE-777965-7	October 6, 2006
Richard Erickson	TE-777965-7	October 6, 2006



LSA

FIGURE 1

Approximate Project Boundary

Vernal Pool Location

N

0 1,000 2,000 Feet

Fairview Park

Project Location Map

SOURCE: USGS 7.5' QUAD, NEWPORT BEACH, CA (1981)

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A. Coastal California gnatcatcher use area outside the 2006 breeding season. Mixed scrub revegetation area (05/11/06).

B. Atop the west facing bluff of Fairview Park with Talbert Nature Preserve in the background (05/11/06).

LSA

FIGURE 2

Fairview Park

Site Photos

I:\MAN530\G\sitephotos_2.cdr (11/17/06)

APPENDIX A

ANIMAL SPECIES DETECTED

APPENDIX A

ANIMAL SPECIES DETECTED

This is a list of the conspicuous aerial insects, amphibians, reptiles, birds, and mammals noted in the study area by LSA biologists in 2006. Presence may be noted if a species is seen or heard, or identified by the presence of tracks, scat, or other signs.

* Species not native to the study area

LEPIDOPTERA	**BUTTERFLIES**
Papilionidae	**Swallowtails**
Papilio rutulus	Western tiger swallowtail
Pieridae	**Whites and Sulphurs**
Pontia protodice	Checkered white
* *Pieris rapae*	Cabbage white
AMPHIBIA	**AMPHIBIANS**
Hylidae	**Treefrogs and Relatives**
Pseudacris regilla	Pacific chorus frog
REPTILIA	**REPTILES**
Phrynosomatidae	**Phrynosomatid Lizards**
Sceloporus occidentalis	Western fence lizard
AVES	**BIRDS**
Anatidae	**Ducks, Geese, and Swans**
Anas platyrhynchos	Mallard
Phalacrocoracidae	**Cormorants**
Phalacrocorax auritus	Double-crested cormorant
Ardeidae	**Herons, Bitterns, and Allies**
Ardea herodias	Great blue heron
Ardea alba	Great egret
Egretta thula	Snowy egret

Cathartidae	**New World Vultures**
Cathartes aura	Turkey vulture
Accipitridae	**Hawks, Kites, Eagles, and Allies**
Accipiter cooperii	Cooper's hawk
Buteo jamaicensis	Red-tailed hawk
Falconidae	**Caracaras and Falcons**
Falco sparverius	American kestrel
Charadriidae	**Plovers and Lapwings**
Charadrius vociferus	Killdeer
Laridae	**Skuas, Gulls, Terns, and Skimmers**
Larus delawarensis	Ring-billed gull
Larus occidentalis	Western gull
Columbidae	**Pigeons and Doves**
* *Columba livia*	Rock (Feral) pigeon
Zenaida macroura	Mourning dove
Columbina passerina	Common ground-dove
Apodidae	**Swifts**
Chaetura vauxi	Vaux's swift
Aeronautes saxatilis	White-throated swift
Trochilidae	**Hummingbirds**
Archilochus alexandri	Black-chinned hummingbird
Calypte anna	Anna's hummingbird
Calypte costae	Costa's hummingbird
Selasphorus rufus	Rufous hummingbird
Selasphorus sasin	Allen's hummingbird
Picidae	**Woodpeckers and Allies**
Colaptes auratus	Northern flicker
Tyrannidae	**Tyrant Flycatchers**
Contopus cooperi	Olive-sided flycatcher
Empidonax difficilis	Pacific-slope flycatcher
Sayornis nigricans	Black phoebe
Sayornis saya	Say's phoebe
Myiarchus cinerascens	Ash-throated flycatcher
Tyrannus vociferans	Cassin's kingbird
Tyrannus verticalis	Western kingbird
Corvidae	**Crows and Jays**

Corvus brachyrhynchos	American crow
Corvus corax	Common raven
Hirundinidae	**Swallows**
Stelgidopteryx serripennis	Northern rough-winged swallow
Petrochelidon pyrrhonota	Cliff swallow
Hirundo rustica	Barn swallow
Aegithalidae	**Long-Tailed Tits and Bushtits**
Psaltriparus minimus	Bushtit
Troglodytidae	**Wrens**
Thryomanes bewickii	Bewick's wren
Troglodytes aedon	House wren
Turdidae	**Thrushes**
Sialia mexicana	Western bluebird
Turdus migratorius	American robin
Timaliidae	**Babblers**
Chamaea fasciata	Wrentit
Mimidae	**Mockingbirds and Thrashers**
Mimus polyglottos	Northern mockingbird
Sturnidae	**Starlings**
* *Sturnus vulgaris*	European starling
Parulidae	**Wood Warblers**
Vermivora celata	Orange-crowned warbler
Dendroica petechia	Yellow warbler
Dendroica coronata	Yellow-rumped warbler
Oporornis tolmiei	MacGillivray's warbler
Geothlypis trichas	Common yellowthroat
Wilsonia pusilla	Wilson's warbler
Icteria virens	Yellow-breasted chat
Emberizidae	**Emberizids**
Pipilo maculatus	Spotted towhee
Pipilo crissalis	California towhee
Passerculus sandwichensis	Savannah sparrow
Melospiza melodia	Song sparrow
Zonotrichia leucophrys	White-crowned sparrow
Cardinalidae	**Cardinals, Saltators, and Allies**
Passerina caerulea	Blue grosbeak
Passerina amoena	Lazuli bunting

Icteridae	**Blackbirds**
Agelaius phoeniceus	Red-winged blackbird
Sturnella neglecta	Western meadowlark
Molothrus ater	Brown-headed cowbird
Icterus bullockii	Bullock's oriole
Fringillidae	**Fringilline and Cardueline Finches and Allies**
Carpodacus mexicanus	House finch
Carduelis psaltria	Lesser goldfinch
Carduelis lawrencei	Lawrence's goldfinch
Carduelis tristis	American goldfinch
Passeridae	**Old World Sparrows**
* *Passer domesticus*	House sparrow
MAMMALIA	MAMMALS
Leporidae	**Rabbits and Hares**
Sylvilagus audubonii	Desert cottontail
Sciuridae	**Squirrels, Chipmunks, and Marmots**
Spermophilus beecheyi	California ground squirrel
Geomyidae	**Pocket Gophers**
Thomomys bottae	Botta's pocket gopher
Canidae	**Foxes, Wolves, and Allies**
Canis latrans	Coyote
Felidae	**Cats**
* *Felis catus*	Feral cat

Taxonomy and nomenclature are based on the following.

Butterflies: North American Butterfly Association (2001. NABA checklist & English names of North American butterflies, second edition. North American Butterfly Association, Morristown, New Jersey).

Amphibians and reptiles: Crother, B.I., et al. (2000. Scientific and standard English names of amphibians and reptiles of North America north of Mexico, with comments regarding confidence in our understanding. *Herpetological Circular* 29; and 2003 update.) for species taxonomy and nomenclature; Stebbins, R.C. (2003. A Field Guide to Western Reptiles and Amphibians, third edition, Houghton Mifflin, Boston) for sequence and higher order taxonomy.

Birds: American Ornithologists' Union (1998. The A.O.U. Checklist of North American Birds, seventh edition. American Ornithologists' Union, Washington D.C.; and 2000, 2002, 2003, 2004, 2005, and 2006 supplements).

Mammals: Grenfell, W.E., Parisi, M.D., and McGriff, D. (2003. Complete list of amphibians, reptiles, birds and mammals in California. California Department of Fish and Game. http://www.dfg.ca.gov/whdab/pdfs/species_list.pdf).

APPENDIX B

U.S. FISH AND WILDLIFE SERVICE 45-DAY SURVEY REPORT

US Fish and Wildlife Service 45-Day Survey Report

Scientific Name: Polioptila californica **Common Name:** California Gnatcatcher

Survey Site Name: Fairview Park **Year:** 2006

Reporting Individual: Ingri Baroni **Permit #:** 812740

Affiliation: LSA Associates **Phone:** (949) 553-0666 x **Email:** ingri.baroni@lsa-assoc.com

Overall site quality: Fair

HABITAT

Vegetation Composition: 3 (1= site made up of >95% native vegetation, 2= >50% native, 3= > 50% exotic vegetation, 4= > 95% exotic)

Dominant Plant Species: Artemisia californica, Eriogonum fasiculatum, Salvia leucophylla

Dominant Exotic Plants: Brassica nigra, Grasses

Surrounding land use: Residential, golf course, flood channel/river

Site disturbance/ threats: Development, feral cats, exotic plants

Additional comments on habitat: Degraded scrub habitats, vernal pools, lawn; mesa, bluff, and sandy lowlands.

SURVEY METHODS (if applicable, report how frequently taped vocalizations were used)

Protocol CA gnatcatcher

SURVEY COORDINATES

Survey Starting Location	Survey End Location
UTM: 412469 , 3725750	412536 , 3724642 Zone: 11
Decimal Degree: _____ , _____	_____ , _____
Degree Decimal-Minutes: _____ , _____	_____ , _____
Degrees Minutes Seconds: _____ , _____	_____ , _____

Datum: NAD27 Coordinate Source: USGS 1:24000 County: Orange

SURVEY RESULTS

Survey Date	#Adults	#Males	#Females	#Juveniles	#Unknown Age	#Territories	Breeding confirmed?	BHCOs detected?	%Vegetative	%Flowering	%Fruiting
	Animal Related Data								Plant Phenology		
4/24/2006	0	0	0	0	0	0	N	N	0	0	0
5/3/2006	0	0	0	0	0	0	N	Y	0	0	0
5/11/2006	0	0	0	0	0	0	N	N	0	0	0
Summary #'s:	0	0	0	0	0	0	N				

Start time: 7:00 Surveyor(s): Ingri Baroni
End time: 9:30 Comments: Observed outside breeding season in 2005 and 2006.

Start time: 7:15 Surveyor(s): Ingri Baroni
End time: 10:45 Comments:

Start time: 8:15 Surveyor(s): Ingri Baroni
End time: 11:30 Comments:

Total # of hours spent surveying: 16

Was cowbird trapping conducted at the sites?: N If yes, provide the length of time the site was trapped (i.e. dates), # of birds caught, etc.

ADDITIONAL COMMENTS (provide recommendations for recovery of the species and other pertinent observations)

CA gnatcatchers observed by LSA in Dec 2005 (2 adults) and Sept/Oct 2006 (2 juveniles) within Fairview Park west of Placentia Ave. in mixed scrub & chenopod scrub habitats. Restore to native vegetation. Photos in report to agencies.

- Be sure to attach a topographic map with the survey area, survey routes, and species locations delineated.
- Also, attach the contact information of all individuals conducting surveys.
- Prior to submitting form(s), review your permit to ensure that all data reporting requirements have been met.

US Fish and Wildlife Service 45-Day Survey Report

Scientific Name: Polioptila californica **Common Name:** California Gnatcatcher

Survey Site Name: Fairview Park **Year:** 2006

Reporting Individual: Ingri Baroni **Permit #:** 812740

Affiliation: LSA Associates **Phone:** (949) 553-0666 x **Email:** ingri.baroni@lsa-assoc.com

Overall site quality: Fair

HABITAT

Vegetation Composition: 3 (1= site made up of >95% native vegetation, 2= >50% native, 3= > 50% exotic vegetation, 4= > 95% exotic)

Dominant Plant Species: Artemisia californica, Eriogonum fasiculatum, Salvia leucophylla

Dominant Exotic Plants: Brassica nigra, Grasses

Surrounding land use: Residential, golf course, flood channel/river

Site disturbance/ threats: Development, feral cats, exotic plants

Additional comments on habitat: Degraded scrub habitats, vernal pools, lawn; mesa, bluff, and sandy lowlands.

SURVEY METHODS (if applicable, report how frequently taped vocalizations were used)

Protocol CA gnatcatcher

SURVEY COORDINATES

Survey Starting Location	Survey End Location
UTM: 412469 , 3725750	412536 , 3724642 Zone: 11
Decimal Degree: _____ , _____	_____ , _____
Degree Decimal-Minutes: _____ , _____	_____ , _____
Degrees Minutes Seconds: _____ , _____	_____ , _____

Datum: NAD27 Coordinate Source: USGS 1:24000 County: Orange

SURVEY RESULTS

		Animal Related Data							Plant Phenology		
Survey Date	#Adults	#Males	#Females	#Juveniles	#Unknown Age	#Territories	Breeding confirmed?	BHCOs detected?	%Vegetative	%Flowering	%Fruiting
5/24/2006	0	0	0	0	0	0	N	N	0	0	0
Start time: 7:15	Surveyor(s): Ingri Baroni, Mike Weller										
End time: 9:15	Comments:										
5/31/2006	0	0	0	0	0	0	N	Y	0	0	0
Start time: 8:15	Surveyor(s): Marshall Iliff										
End time: 11:00	Comments:										
6/7/2006	0	0	0	0	0	0	N	Y	0	0	0
Start time: 6:30	Surveyor(s): Richard Erickson, Paul Schwartz										
End time: 8:30	Comments:										
Summary #'s:	0	0	0	0	0	0	N				

Total # of hours spent surveying: 16

Was cowbird trapping conducted at the sites?: N If yes, provide the length of time the site was trapped (i.e. dates), # of birds caught, etc.

ADDITIONAL COMMENTS (provide recommendations for recovery of the species and other pertinent observations)

CA gnatcatchers observed by LSA in Dec 2005 (2 adults) and Sept/Oct 2006 (2 juveniles) within Fairview Park west of Placentia Ave. in mixed scrub & chenopod scrub habitats. Restore to native vegetation. Photos in report to agencies.

* Be sure to attach a topographic map with the survey area, survey routes, and species locations delineated.
* Also, attach the contact information of all individuals conducting surveys.
* Prior to submitting form(s), review your permit to ensure that all data reporting requirements have been met.

APPENDIX C

CALIFORNIA NATIVE SPECIES FIELD SURVEY SUMMARY FORM

California Native Species Field Survey Summary Form

Mail to:
Natural Diversity Database
California Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95814

For Office Use Only
Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Fieldwork: April 24 - June 7, 2006 **Number of Surveys Conducted:** 6

Scientific Name: Polioptila californica
Common Name: California Gnatcatcher

Species Found? (Y/N): N
Is this an existing NDDB occurrence? (Y/N): ____ **(Occ. #)**_____
Were specimen(s) collected? (Y/N): N
Collection #: _____
Museum / Herbarium: _____

Reporter: Ingri Baroni
Address: 20 Executive Park, Suite 200
Irvine CA 92614-5987
Email: ingri.baroni@lsa-assoc.com
Phone: (949) 553-0666 x

Plant Information

Phenology: 0 % Vegetative | 0 % Flowering | 0 % Fruiting

Animal Information

Age Structure: 0 # Adults | 0 # Juveniles | 0 # Unknown
breeding/nesting: N wintering: N burrow site: N rookery: N

Location (please also attach or draw map on back)

Site Name: Fairview Park
County: Orange Landowner/Manager: City of Costa Mesa
Quad Name: Newport Beach Elevation: 15 Township: 6S Range: 10W Section: 8 Quarter section: _____
UTM Zone: 11 Datum: nad27 Point Accuracy: 0 (m) Source: USGS 1:24000 (GPS, map type, etc.)
UTM Coordinates: 412469 N 3725750 E **Degrees, decimal minutes:** _____ N _____ W
Decimal degree: _____ N _____ W **Degrees, minutes, seconds:** _____ N _____ W

Habitat Description

Dominant Plant Species: Artemisia californica, Eriogonum fasiculatum, Salvia leucophylla

Dominant Exotic Plants: Brassica nigra, Grasses

Canopy Height (m): 1.5 Surface water or saturated soil present at site? (N/Y): N

Site Information

Overall site quality: Fair
Surrounding land use: Residential, golf course, flood channel/river
Site disturbance/ threats: Development, feral cats, exotic plants

Comments: CA gnatcatchers observed by LSA in Dec 2005 (2 adults) and Sept/Oct 2006 (2 juveniles) within Fairview Park west of Placentia Ave. in mixed scrub & chenopod scrub habitats. Restore to native vegetation. Photos in report to agencies.

Determination

State what criteria were used to identify the species:
Visual, aural

Photographs

Are you attaching photographs of species, habitat, diagnostic feature(s), etc.? (Y/N): Y
(If yes, please describe in Comments section)